

P16 7682520

RECEIPT FOR CERTIFIED MAIL

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SENT TO		Mr. R. Harrell	
STREET AND NO.		32 m	
P.O., STATE AND ZIP CODE		P.O. Box 389, Jay, R-1	
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CONSULT POSTMASTER FOR FEES	OPTIONAL SERVICES	CERTIFIED FEE	c
		SPECIAL DELIVERY	c
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	RETURN RECEIPT SERVICE	SHOW TO WHOM AND DATE DELIVERED	c
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TOTAL POSTAGE AND FEES		\$	
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PS Form 3800, Apr. 1976



STATE OF FLORIDA  
DEPARTMENT OF  
ENVIRONMENTAL REGULATION

CONSTRUCTION  
PERMIT

NO. AC 16-32394

SCM CORPORATION  
ORGANIC CHEMICALS DIVISION  
FOSSIL FUEL STEAM GENERATOR  
DUVAL COUNTY

DATE OF ISSUANCE

1 DECEMBER 1980

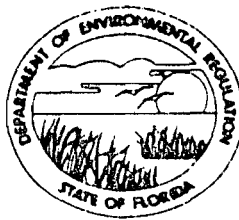
DATE OF EXPIRATION

APRIL 30, 1983

Jacob D. Varn

JACOB D. VARN  
SECRETARY

TWIN TOWERS OFFICE BUILDING  
2600 BLAIR STONE ROAD  
TALLAHASSEE, FLORIDA 32301



BOB GRAHAM  
GOVERNOR  
JACOB D. VARN  
SECRETARY

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

December 3, 1980

Mr. R.W. Harrell  
Manager of Engineering  
SCM Corporation  
Organic Chemicals Division  
P. O. Box 389  
Jacksonville, Florida 32201

Dear Mr. Harrell:

Enclosed is Permit Number AC 16-32394, dated December 1, 1980  
to SCM Corporation  
issued pursuant to Section 403, Florida Statutes.

Acceptance of the permit constitutes notice and agreement that the Department will periodically review this permit for compliance, including site inspections where applicable, and may initiate enforcement actions for violation of the conditions and requirements thereof.

Sincerely,

Lawrence A. George,  
Environmental Administrator

Final Determination

SCM Corporation  
Organic Chemicals Division  
Duval County

Construction Permit  
Application Number  
AC 16-32394

Florida Department of Environmental Regulation  
Bureau of Air Quality Management  
Central Air Permitting  
November 24, 1980

SCM Corporation Duval County  
Fossil Fuel Steam Generator

The construction application has been reviewed by the Department. Public notice of the Department's intent to issue was published in the Florida Times-Union on October 24, 1980. The preliminary determination and technical evaluation were available for public inspection at the Duval County Department of Health, Welfare and Bio-Environmental Services, the DER St. Johns River Subdistrict and Bureau of Air Quality Management.

Comments were received from the Department of Health, Welfare & Bio-Environmental Services, Jacksonville, concerning ton per year figures based on a 8736 hour year instead of a 8760 hour year and typographical errors were noted. Corrections were made.

It is recommended that the construction permit be issued.

TWIN TOWERS OFFICE BUILDING  
2600 BLAIR STONE ROAD  
TALLAHASSEE, FLORIDA 32301



BOB GRAHAM  
GOVERNOR  
JACOB D. VARN  
SECRETARY

STATE OF FLORIDA

## DEPARTMENT OF ENVIRONMENTAL REGULATION

APPLICANT: SCM Corporation  
Organic Chemicals Division  
P. O. Box 389  
Jacksonville, Florida 32201

PERMIT/CERTIFICATION  
NO. AC 16-32394

COUNTY: Duval

PROJECT: Steam Boiler No. 7

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Chapter 17-2 and 17-4, Florida Administrative Code. The above named applicant, hereinafter called Permittee, is hereby authorized to perform the work or operate the facility shown on the approved drawing(s), plans, documents, and specifications attached hereto and made a part hereof and specifically described as follows:

For the installation of a 49 MMBTU/Hr input fossil fuel steam generator at the SCM Corporation, Organic Chemicals Division Plant, Foot of West 61st. Street, Jacksonville, Florida. This process steam boiler is being installed as a physical replacement for the existing E. Keeler Company boiler No. 3 (AC 16-24871). The universal transverse mercator and latitude, longitude coordinates are: UTM Zone 17,435.600 E, 3360.750 N and 32° 72' 45"N by 81° 39' 50"W, respectively.

### Attachment:

1. Application to Construct Air Pollution Sources - DER form 17-2.122(16)
2. FDER St. Johns River Subdistrict letter to applicant dated January 11, 1980.

### GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions", and as such are binding upon the permittee and enforceable pursuant to the authority of Section 403.161(1), Florida Statutes. Permittee is hereby placed

PERMIT NO.:  
APPLICANT:

on notice that the department will review this permit periodically and may initiate court action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

2. This permit is valid only for the specific processes and operations indicated in the attached drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit shall constitute grounds for revocation and enforcement action by the department.

3. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately notify and provide the department with the following information: (a) a description of and cause of non-compliance; and (b) the period of non-compliance, including exact dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance. The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the department for penalties or revocation of this permit.

4. As provided in subsection 403.087(6), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

5. This permit is required to be posted in a conspicuous location at the work site or source during the entire period of construction or operation.

6. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source, which are submitted to the department, may be used by the department as evidence in any enforcement case arising under the Florida Statutes or department rules, except where such use is proscribed by Section 403.111, F.S.

7. In the case of an operation permit, permittee agrees to comply with changes in department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or department rules.

8. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant, or aquatic life or property and penalties therefore caused by the construction or operation of this permitted source, nor does it allow the permittee to cause pollution in contravention of Florida Statutes and department rules, except where specifically authorized by an order from the department granting a variance or exception from department rules or state statutes.

9. This permit is not transferable. Upon sale or legal transfer of the property or facility covered by this permit, the permittee shall notify the department within thirty (30) days. The new owner must apply for a permit transfer within thirty (30) days. The permittee shall be liable for any non-compliance of the permitted source until the transferee applies for and receives a transfer of permit.

10. The permittee, by acceptance of this permit, specifically agrees to allow access to permitted source at reasonable times by department personnel presenting credentials for the purposes of inspection and testing to determine compliance with this permit and department rules.

11. This permit does not indicate a waiver of or approval of any other department permit that may be required for other aspects of the total project.

12. This permit conveys no title to land or water, nor constitutes state recognition or acknowledgement of title, and does not constitute authority for the reclamation of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express state opinion as to title.

13. This permit also constitutes:

- Determination of Best Available Control Technology (BACT)
- Determination of Prevention of Significant Deterioration (PSD)
- Certification of Compliance with State Water Quality Standards (Section 401, PL 92-500)

SPECIFIC CONDITIONS:

PERMIT NO.: AC 16-32394  
APPLICANT: SCM Corporation Organic Chemicals Division

Specific Conditions

✓ 1. The maximum allowable emissions from No. 7 Boiler shall be:

<u>Pollutant</u>	<u>lbs/hr</u>	<u>TPY</u>
Particulate	3.4	14.8
SO <sub>2</sub>	38.5	168.6
NO <sub>x</sub>	8.5	37.2

✓ 2. The maximum hours of operation shall be 24 hours per day, 7 days per week, 52 weeks per year or 8760 hours per year.

✓ 3. The maximum fuel consumption shall be 46,800 cubic feet per hour of Natural gas or 327 gallons per hour of No. 6 oil or 343 gallons per hour of No. 6 oil blended with plant by-product oils, fired singly or in combination.

✓ 4. The sulfur content of No. 6 oil or blended oils shall not exceed 0.75%.

X 5. Permits AC 16-24872, 16-24873 and 16-2367 for Boiler 4, 5 and 6, respectively shall be amended to show a combined total allowed SO<sub>2</sub> emission not to exceed 387 lbs/hr. or 1696 TPY for the three boilers.

X 6. During the construction phase, quarterly reports on construction progress, commencing 3 months after initiation of construction, shall be submitted to the Bureau of Air Quality Management. The operating permit shall require maintenance of records indicating operation hours, and amounts of fuel consumed by fuel type and shall be submitted annually in accordance with 17-4.14.

✓ 7. Emissions tests for visible emissions shall be conducted for Boiler No. 7 emission point in accordance with Method 9, 40 CFR 60 Appendix A. The results shall be submitted to the Bureau of Air Quality Management for determination of compliance with 17-2.05(6)E(2) FAC and the conditions of this permit. Applicant shall furnish the Department a 30 day notice prior to testing.

✓ 8. After initial testing and prior to expiration of this permit or any operational usage, the applicant shall submit a complete application for an operation permit.

  
\_\_\_\_\_  
Jacob D. Varn, Secretary

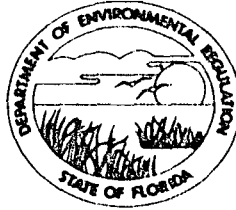
Expiration Date: April 30, 1983

Issued this 1<sup>st</sup> day of DECEMBER, 19 80.

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION



TWIN TOWERS OFFICE BUILDING  
2600 BLAIR STONE ROAD  
TALLAHASSEE, FLORIDA 32301



BOB GRAHAM  
GOVERNOR  
JACOB D. VARN  
SECRETARY

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

M E M O R A N D U M

TO: DER District Office, County Environmental Department,  
CAPS File, Central File, EPA, Consultant

FROM: Tim Powell, Central Air Permitting

DATE: December 9, 1980

SUBJ: Finalized Air Construction Permits

Attached please find one Air Construction Permit as issued to  
SCM Corporation. This permit  
is for a Terpene Reactor to be  
located in Jacksonville, Florida.

TWIN TOWERS OFFICE BUILDING  
2600 BLAIR STONE ROAD  
TALLAHASSEE, FLORIDA 32301



BOB GRAHAM  
GOVERNOR  
JACOB D. VARN  
SECRETARY

STATE OF FLORIDA  
**DEPARTMENT OF ENVIRONMENTAL REGULATION**

December 8, 1980

Robert Harrell  
SCM Corporation - Organic Chemicals Division  
P. O. Box 389  
Jacksonville, Florida 32201

Dear Mr. Harrell:

Enclosed is Permit Number AC 16-34907, dated December 5, 1980  
to SCM Corporation, Organic Chemicals Division  
issued pursuant to Section 403, Florida Statutes.

Acceptance of the permit constitutes notice and agreement that the Department will periodically review this permit for compliance, including site inspections where applicable, and may initiate enforcement actions for violation of the conditions and requirements thereof.

Sincerely,

*for / Steven Smallwood*

Steve Smallwood, Chief  
Bureau of Air Quality Management

DEPARTMENT OF ENVIRONMENTAL REGULATION

INTEROFFICE MEMORANDUM

For Routing To District Offices And/Or To Other Than The Addressee	
To: _____	Loctn.: _____
To: _____	Loctn.: _____
To: _____	Loctn.: _____
From: _____	Date: _____

TO: Jacob D. Varn  
 FROM: Steve Smallwood *J. George / SS*  
 DATE: December 5, 1980  
 SUBJ: Approval and Signature - Air Construction Permit

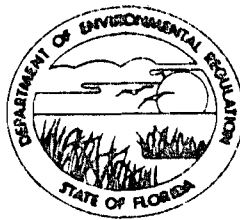
Attached please find a construction permit for SCM Corporation Organic Chemicals Division, Jacksonville, Duval County. The permit is for the construction of one terpene reactor. Copies of all correspondence, the preliminary determination, public comments, responses to commentors, and final determination are also attached for your review.

Day 90, after which the permit would be issued by default is January 11, 1981.

We recommend that you approve and sign the permit with the specific conditions indicated.

SS: caa

TWIN TOWERS OFFICE BUILDING  
2600 BLAIR STONE ROAD  
TALLAHASSEE, FLORIDA 32301



BOB GRAHAM  
GOVERNOR

JACOB D. VARN  
SECRETARY

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

December 3, 1980

Mr. R.W. Harrell  
Manager of Engineering  
SCM Corporation  
Organic Chemicals Division  
P. O. Box 389  
Jacksonville, Florida 32201

Dear Mr. Harrell:

Enclosed is Permit Number AC 16-32394, dated December 1, 1980  
to SCM Corporation  
issued pursuant to Section 403, Florida Statutes.

Acceptance of the permit constitutes notice and agreement that the Department will periodically review this permit for compliance, including site inspections where applicable, and may initiate enforcement actions for violation of the conditions and requirements thereof.

Sincerely,

Lawrence A. George,  
Environmental Administrator

State of Florida  
DEPARTMENT OF ENVIRONMENTAL REGULATION

**INTEROFFICE MEMORANDUM**

For Routing To District Offices And/Or To Other Than The Addressee		
To: _____	Loctn.: _____	
To: _____	Loctn.: _____	
To: _____	Loctn.: _____	
From: _____	Date: _____	
Reply Optional [ ]	Reply Required [ ]	Info. Only [ ]
Date Due: _____	Date Due: _____	

TO: Jacob D. Varn, Secretary FDER  
FROM: Steve Smallwood, *[Signature]* Chief BAQM  
DATE: November 24, 1980  
SUBJ: Approval and Signature of Attached Air Construction Permit.

The attached Construction Permit for SCM Corporation, Organic Chemicals Division, Jacksonville, Duval County, Florida is for the construction of a fossil fuel Steam Generator to be located at the foot of West 61st. Street.

Day 90, after which the permit would be issued by default, is January 5, 1981.

The Bureau recommends your approval and signature.

**RECEIVED**  
DEC 1 1980

Office of the Secretary

Check Sheet

Company Name: S.C.M. Corp.  
Permit Number: AC 110 - 032394  
PSD Number: \_\_\_\_\_  
Permit Engineer: \_\_\_\_\_

**Application:**

- |  |                          |
|--|--------------------------|
| <input checked="" type="checkbox"/> Initial Application    | Cross References:        |
| <input checked="" type="checkbox"/> Incompleteness Letters | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> Responses              | <input type="checkbox"/> |
| <input type="checkbox"/> Waiver of Department Action       | <input type="checkbox"/> |
| <input type="checkbox"/> Department Response               |                          |
| <input checked="" type="checkbox"/> Other                  |                          |

**Intent:**

- ~~Intent to Issue~~
- ~~Notice of Intent to Issue~~
- Technical Evaluation
- ~~BACT or LAER Determination~~
- ~~Unsigned Permit~~
  - Correspondence with:
    - EPA
    - Park Services
    - Other
- ~~Proof of Publication~~
  - Petitions - (Related to extensions, hearings, etc.)
  - Waiver of Department Action
  - Other

**Final**

**Determination:**

- Final Determination
- Signed Permit
- BACT or LAER Determination
- Other

**Post Permit Correspondence:**

- Extensions/Amendments/Modifications
- Other

In the folder labeled as follows there are documents, listed below, which were not reproduced in this electronic file. That folder can be found in one of the file drawers labeled Supplementary Documents Drawer. Folders in that drawer are arranged alphabetically, then by permit number.

**Folder Name:** SCM Corporation

**Permit(s) Numbered:**

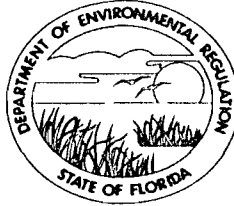
AC	16	-	032394
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Period during  
which document  
was received:

Detailed Description

Period during which document was received:		Detailed Description
APPLICATION 1 JULY 1980	1.	13"×28" BLUEPRINT: SCM ORGANIC CHEMICALS JACKSONVILLE PLANT (DRAWING NUMBER: 5000-1) DRAWN 9/29/70, REV. 6/27/80
	2.	8.5"×11" BLUEPRINT: SCM CORPORATION ORGANIC CHEMICALS DIVISION PLANT LOCATION (DRAWING NUMBER: S-5000-26)
	3.	8.5"×11" BLUEPRINT: # 7 BOILER (REPLACES #3) (#1 & #2 REMOVED LATE 60S)

TWIN TOWERS OFFICE BUILDING  
2600 BLAIR STONE ROAD  
TALLAHASSEE, FLORIDA 32301



BOB GRAHAM  
GOVERNOR  
JACOB D. VARN  
SECRETARY

STATE OF FLORIDA

**DEPARTMENT OF ENVIRONMENTAL REGULATION**

November 18, 1980

Mr. E. P. Balducci  
Bio-Environmental Services  
Air and Water Pollution Control  
515 West 6th Street  
Jacksonville, Florida 32206

Dear Mr. Balducci:

Thank you for the comments concerning the construction permit AC 16-34907, Process Reactor, SCM Corporation. The following is in reply to your questions.

a. The main reactants per the applicants flow sheet are Terpenes and Edible Solids, a total of 173.40 pounds which is recovered as product 176.57 pounds. The Solvent removed after the crystallization is 91.15 pounds at 91% concentration. This calculates to be 82.94 pounds (91.15 times 91%) which minus the 101.71 pounds of solvent charged indicates a solvent loss of 18.77 pounds. Analysis of the vapors vented to the scrubber indicates a 97.6% solvent content, balance water. Thus 18.77 times 97.6% shows 18.31 pounds of solvent into the scrubber. Since the vented vapor flow entering the scrubber is composed of moisture and a solvent infinitely soluble in water, and the scrubber absorbent being water, the efficiency should be 97-98%. This was based on the EPA-450/2-78-022, Control Techniques for Volatile Organic Emissions from Stationary Sources which states; Absorption is most efficient under the following conditions:

1. The organic vapors are quite soluble in the absorbent.
2. The absorbent is relatively nonvolatile
3. The absorbent is noncorrosive
4. The absorbent is inexpensive and readily available.
5. The absorbent has low viscosity.
6. The solvent is nontoxic, nonflammable, chemically stable, and has a low freezing point.



Mr. E. P. Balducci  
Page Two

The proposed system satisfies these requirements.

In view of your letter indicating the vented emissions indeed contain terpene and solvent vapors, a efficiency of 96% would be more reasonable. The allowable emissions would then be 0.73 lbs./hr. or 3.2 TPY.

b. 17-2.17(6)(a)2. The most stringent emissions limitation which is contained in the implementation plan of any State for such class or category of source, unless the owner or operator of the proposed source demonstrates that such limitations are not achievable.

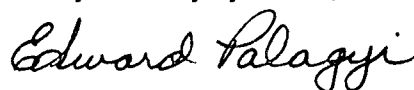
To date, no comments have been received by the Department from the applicant.

c. Per our telephone conversation you are sending a copy of AC 16-6716.

d. The typographical error will be corrected.

If you require additional information please call me at (904) 488-1344.

Very truly yours,



Edward Palagyi  
Review Engineer

EP:caa

DEPARTMENT OF HEALTH, WELFARE  
& BIO-ENVIRONMENTAL SERVICES  
Bio-Environmental Services Division  
Air and Water Pollution Control



November 14, 1980



Mr. John Svec  
Florida Department of Environmental  
Regulation  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32301

RE: SCM Corporation's AC16-34907, Process Reactor

Dear Mr. Svec:

The following comments are offered on the captioned project's application and Bureau of Air Quality Management's (BAQM) review to aid the Bureau in processing the captioned permit application.

- a) As per Mr. Sewell, the 19.41 lb/hr emissions to the scrubber contain both terpene and solvent vapors. The actual emissions from the scrubber would therefore, be 0.94 lb/hr or 4.11 T/yr. Please explain why specific provision number 1 allows only 0.48 lb/hr or 2.1 T/yr.
- b) Please explain what rule you cited to limit the VOC emissions to the levels documented in specific provision number 1.
- c) Has the BAQM documented the increase in VOC emissions from SCM's facility since 1977? I have enclosed a copy of a letter from Mr. Sewell showing a loss of 934 lb/hr from the 39 vacuum jets and two new reactors. Our files indicate that 41% of this process loss is emissions to the atmosphere. According to my records the two new reactors (AC16-6716) and the 39th vacuum jet have been installed since 1977.
- d) Finally, please note the typographical error in Section IV, Rule Applicability. The rule cited should read 17-2.17 (3) (a) 1.a. (i).

/Continued.....



Mr. John Svec  
Page Two  
November 14, 1980

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If I can be of further assistance, please call me at (904) 633-3033.

Very truly yours,



E. P. Balducci  
Assistant Air Engineer

EPB/sg

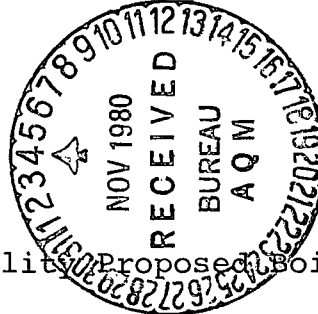
enclosure

DEPARTMENT OF HEALTH, WELFARE  
& BIO-ENVIRONMENTAL SERVICES  
Bio-Environmental Services Division  
Air and Water Pollution Control

October 30, 1980



Mr. John Svec  
Florida Department of Environmental  
Regulation  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32301



RE: SCM Corporation, Jacksonville Facility Proposed Boiler #7,  
AC16-32394

Dear Mr. Svec:

The following represents the Bio-Environmental Services staff comments with respect to the Department's proposed action on the captioned source:

- 1) A PSD, review with a BACT determination and modelling, should be required according to 17-2.04 (6). Section 17-2.04 (6) (d) (4) is referring to modifications to existing facilities by the addition of pollution control equipment. We do not feel that this section applies to a new boiler whose function is steam generation.
- 2) We suggest that you have SCM verify their NO<sub>x</sub> emissions (lb/hr). AP-42 emission factors indicate a higher NO<sub>x</sub> emission rate.
- 3) The list of pollutant emissions in TPY outlined in Section III of the application and in Section V. of the Department review, does not reflect the yearly hours of operation indicated in the application.
- 4) Please note that Boiler #3 represents 10.93% of the total boiler capacity covered under the SO<sub>2</sub> Bubble emission limit for Boilers #3, 4, 5, and 6. A 10.93% reduction of the SO<sub>2</sub> emissions would be 47.2 lb/hr (206.5 TPY). We suggest that the permits for Boilers #4, 5, and 6 be amended to show a combined emission rate of 384.7 lb/hr (1682.9 TPY) instead of the proposed 387 lb/hr (1690 TPY).
- 5) Two typographical errors were noticed. The UTMs on page one of the proposed permit provisos should read E-17,7435.600 and N-3360.750. Also Section V. 2. of the Department's review should be changed to show 44.7 lb/hr of SO<sub>2</sub> rather than 44.6.

/Continued....



Mr. John Svec  
Florida Department of Environmental  
Regulation  
Page Two  
October 30, 1980

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These comments are submitted for your information to aid you in your determination. We feel that the most important comment is discussed in paragraph one of this letter regarding the necessity of a PSD review. If you would care to discuss these items, please call me at 633-3033.

Very truly yours,



E. P. Balducci  
Assistant Air Engineer

EPB/sg

TWIN TOWERS OFFICE BUILDING  
2600 BLAIR STONE ROAD  
TALLAHASSEE, FLORIDA 32301



BOB GRAHAM  
GOVERNOR  
JACOB D. VARN  
SECRETARY

STATE OF FLORIDA

**DEPARTMENT OF ENVIRONMENTAL REGULATION**

MEMORANDUM

CERTIFIED MAIL

TO: SCM Corporation, Organic Chemicals Division, Jacksonville, Florida  
G. Doug Dutton, Manager, St. Johns River Subdistrict,  
FDER  
Jacksonville Bio-Environmental Services

FROM: Steve Smallwood, Chief  
Bureau of Air Quality Management

DATE: October 17, 1980

SUBJ: Proposed Department Action on SCM Corporation's Application  
to install a Fossil Fuel Steam Generator at their Plant in  
Jacksonville, Duval County, Florida.

Attached is one copy of the proposed Construction Permit and  
Technical Evaluation for SCM Corporation, Organic Chemicals Division,  
Jacksonville, Florida.

Pursuant to 17-2.091 and 40 CFR 51.18 this information is to  
be maintained on file for public review for 30 days.

Comments are to be submitted to the Bureau of Air Quality  
Management.

SS:dav

Attachments

Technical Evaluation  
and  
Preliminary Determination

SCM Corporation  
Organic Chemicals Division  
Jacksonville, Florida

Construction Permit  
Application Number  
AC 16-32394

Florida Department of Environmental Regulation  
Bureau of Air Quality Management  
Central Air Permitting  
October 17, 1980

I. PROPOSED DEPARTMENT ACTION:

The Department intends to issue the requested construction permit to SCM Corporation to install a new boiler at the plant located at the foot of W. 61st Street, Jacksonville, Florida, subject to public comment received as a result of this notice.

Any person wishing to file comments on this proposed action, may do so by submitting such comments in writing to:

Mr. John Svec  
Florida Department of Environmental  
Regulation  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32301

Any comments received within thirty days after publication of this notice will be considered and noted in the Department's final determination.

Any person whose substantial interests would be affected by the issuance or denial of this permit may request an administrative hearing by filing a petition for hearing as set forth in Section 28-5.15 (copy attached). Such petition must be filed within 14 days of the date of this notice. Such petition is to be filed with:

Mary Clark  
Office of General Counsel  
Florida Department of Environmental  
Regulation  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32301

II. SUMMARY OF EMISSION AND AIR QUALITY ANALYSIS:

a. The proposed construction is located in that section of Duval County which is classified "Nonattainment" for the criteria pollutants particulate matter and ozone.

b. The pollutants from this source will be the combustion products from the firing of Natural gas, No. 6 oil, a blend of No. 6 and plant by-product oils or in combination.

c. Emission offsets will result from the shut-down and dismantling of their No. 3 boiler (Permit AO 16-24871). Equating No. 3 boiler permitted emissions to the proposed installation emissions (AP-42) results in an emission reduction of; Particulate matter - 0.7 lb/hr (3.1 TPY), SO<sub>2</sub>-6.1 lb/hr (26.6 TPY), NO<sub>x</sub>-3.7 lb/hr. (16.2 TPY).



III. SYNOPSIS OF APPLICATION:

a. Name and address of Applicant:

SCM Corporation  
Organic chemicals Division  
P. O. Box 389  
Jacksonville, Florida 32201

b. Description of Project and Controls:

This project involves the installation of a new 49 MMBTU/hr. boiler replacing in situ a 40.6 MMBTU/hr. boiler. No add on pollution control device is planned for the proposed installation.

c. Process and flow emission network:

The applicant proposed to construct a process steam boiler to be fueled by Natural gas, No. 6 oil with a maximum sulfur content of 0.75%, or a blend of No. 6 oil and plant by-product oils containing less than 0.75% sulfur. The proposed installation will have the capability to fire each fuel separately or simultaneously. The proposed operating schedule is full time or 8,760 hours per year. The proposed maximum process and emission rates follow.

<u>*Pollutant</u>	<u>lb/hr.</u>	<u>TPY</u>
Particulate	3.4	14.8
SO <sub>2</sub>	38.5	168.6
NO <sub>x</sub>	8.5	37.2

Natural gas - 0.0468 MMCF/hr.  
No. 6 oil - 7.79 barrels/hr.  
Oil blend - 8.16 barrels/hr.

\*Emissions based on factors in AP-42 for No. 6 oil with a maximum sulfur content of 0.75%.

IV. RULE APPLICABILITY:

The proposed installation is located in that section of Duval County classified nonattainment for the pollutants particulate matter and ozone. Both particulate and ozone potential emissions will be less than 5 lbs./hr. or 15 TPY which exempts this project from the nonattainment requirements (F.A.C. 17-2.17(3)1a(i)).

The facility is a major emitting facility (F.A.C. 17-2.02(70)) and is located in an attainment area for the pollutant SO<sub>2</sub>. Since the proposed installation reduces emission of SO<sub>2</sub>, section F.A.C. 17-2.04 (6)(d)4. exempts the applicant from the requirements of the PSD rule.

The visible emissions density shall be equal to or less than 20% opacity. A density of 40% opacity is not permitted more than two minutes in any one hour (F.A.C. 17-2.05(6)E(2)).

V. FINDINGS:

1. It is requested that the proposed boiler burn Natural gas as the primary fuel, the blended oils as necessary and No. 6 oil as the stand-by fuel. Since no fuel usage ratio limitations are requested, emissions must be examined on a worst case basis. This will occur when burning No. 6 oil (0.75% Sulfur) at the maximum rate of 327 gallons per hour.

<u>Pollutant</u>	<u>*lbs./hr.</u>	<u>TPY</u>
Particulate	3.4	14.8
SO <sub>2</sub>	38.5	168.6
NO <sub>x</sub> <sup>2</sup>	8.5	37.2

\*Emissions based on factors from AP-42.

2. The No. 3 boiler being replaced by the proposed installation is a fossil fuel steam generator, 460 Hp, Type MK, No. 12968, Mfg. E. Keeler Co. (F.A.C. 17-2.17(5)3(b)3). The unit was originally permitted (AO 16-2368) and renewed (AO 16-24871) without change. The allowed emissions were:

<u>Pollutant</u>	<u>lbs./hr.</u>	<u>TPY</u>
Particulate	4.1	17.9
SO <sub>2</sub>	44.6	194.8
NO <sub>x</sub> <sup>2</sup>	12.2	53.3

Reduction in emissions:

<u>Pollutant</u>	<u>lbs/hr.</u>	<u>TPY</u>
Particulate	0.7	3.1
SO <sub>2</sub>	6.1	26.6
NO <sub>x</sub> <sup>2</sup>	3.7	16.2

3. The source is exempt from the nonattainment rule requirements per F.A.C. 17-2.17(3)1a(i) and the PSD rule per F.A.C. 17-2.04 (6)(d)4.

4. January 11, 1980 FDER, St. Johns River Subdistrict amended operating permits AO 16-24871, 24872, 24873 and 2367 for the applicants boilers 3, 4, 5, and 6, respectively. The total SO<sub>2</sub> emissions from all four boilers shall not exceed 432 lbs./hr. or 1,889.4 TPY.

Boiler No. 3 is to be replaced by the proposed No. 7 unit. When the operating permit is issued for the new No. 7 boiler the permits AO 16-24872, 24873 and 2367 for boilers 4, 5, and 6, respectively shall be amended reducing the total SO<sub>2</sub> emissions from these three boilers to 387 lbs./hr. or 1,696 TPY. This reduction reflects the permitted emissions (AO 16-24871) of Boiler No. 3 used in the offset analysis for the proposed No. 7 boiler.

The allowed emissions for the proposed Boiler No. 7 shall be as shown under "Specific Conditions" of the permit.

5. Construction should commence and be completed within a reasonable time based on the projections included in the application.

VI. PROPOSED ALLOWABLE EMISSIONS AND PERMIT CONDITIONS:

See Draft Permits

Attachment: Rule 28-5

RULES OF THE ADMINISTRATIVE COMMISSION  
MODEL RULES OF PROCEDURE  
CHAPTER 28-5  
DECISIONS DETERMINING SUBSTANTIAL INTERESTS

28-5.15 Requests for Formal and Informal Proceedings

- (1) Requests for proceedings shall be made by petition to the agency involved. Each petition shall be printed typewritten or otherwise duplicated in legible form on white paper of standard legal size. Unless printed, the impression shall be on one side of the paper only and lines shall be double spaced and indented.
- (2) All petitions filed under these rules should contain:
  - (a) The name and address of each agency affected and each agency's file or identification number, if known;
  - (b) The name and address of the petitioner or petitioners;
  - (c) All disputed issues of material fact. If there are none, the petition must so indicate;
  - (d) A concise statement of the ultimate facts alleged, and the rules, regulations and constitutional provisions which entitle the petitioner to relief;
  - (e) A statement summarizing any informal action taken to resolve the issues, and the results of that action;
  - (f) A demand for the relief to which the petitioner deems himself entitled; and
  - (g) Such other information which the petitioner contends is material.

DEPARTMENT OF HEALTH, WELFARE  
& BIO-ENVIRONMENTAL SERVICES  
Bio-Environmental Services Division  
Air and Water Pollution Control



October 8, 1980

Mr. Ed Palagyi  
Bureau of Air Quality Management  
Department of Environmental Regulation  
Twin Towers Office Building  
2600 Blairstone Road  
Tallahassee, Florida 32301

RE: SCM Corporation

Dear Mr. Palagyi:

Enclosed please find the correspondence between SCM Corporation and Bio-Environmental Services regarding their boilers permitted SO<sub>2</sub> emissions, as you requested by telephone on October 6, 1980. If I can be of further assistance to you, please call me at 633-3033.

Very truly yours,

E. P. Balducci  
Assistant Air Engineer

EPB/sg

enclosure

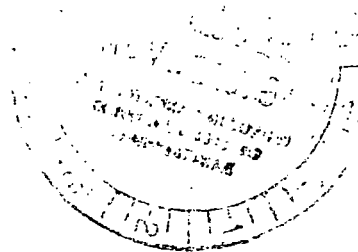


ORGANIC CHEMICALS  
DIVISION OF SCM CORPORATION

P. O. BOX 369, JACKSONVILLE, FLA. 32201 (904) 764-1711

November 19, 1979

Mr. Walter W. Honour, Division Chief  
City of Jacksonville  
Department of Health, Welfare, and  
Bio-Environmental Services  
Air & Water Pollution Control Activity  
515 West Sixth Street  
Jacksonville, Florida 32206



Re: #A016-2367 - No. 6 Boiler

Dear Mr. Honour:

We burn both Natural Gas and #6 Fuel Oil in our boilers at our Jacksonville Plant. Our #3, #4, and #5 Boilers are permitted for 1.5% Sulfur, #6 Fuel Oil and our #6 Boiler has a current permit for 0.7% Sulfur Fuel Oil.

As you are aware, #6 Fuel Oil with less than 1.5% sulfur is not available and we have to mix Natural Gas and 1.5% Sulfur - #6 Fuel Oil in our #6 Boiler in order to meet the above requirements.

During cold weather the low gas pressure on the Peoples Gas Company pipeline may prevent us from averaging the sulfur level to our permit condition. We, therefore, must request that our permit for #6 Boiler be changed to 1.5% Sulfur, the same as our other boilers. This boiler, when operating at maximum capacity uses 151,920#/day of #6 Fuel Oil. The additional sulfur would therefore be only  $(151,920 \times (0.015 - 0.007))$  or 1215#/day.

Continued

Mr. Walter W. Honour, Division Chief  
City of Jacksonville  
November 19, 1979  
Page -2-

This situation may become a crisis if Natural Gas should become unavailable. Please call me if you have any questions.

Very truly yours,



R. W. Harrell  
Manager, Division Engineering

RWH/mwf

cc: G. L. Dickens  
R. P. Chatham  
K. R. Handley  
W. B. Stoufer

DEPARTMENT OF HEALTH, WELFARE  
& BIO-ENVIRONMENTAL SERVICES  
Bio-Environmental Services Division  
Air and Water Pollution Control

November 28, 1979



Mr. R. W. Harrell  
Manager, Division of Engineering  
SCM Organic Chemicals  
P.O. Box 389  
Jacksonville, Florida 32201

Re: Boiler #6, A016-2367, November 19,  
1979, request to burn higher sulfur  
fuel.

Dear Mr. Harrell:

In response to your recent request for permission to burn higher sulfur grade fuel oils, the Jacksonville Environmental Protection Board, at a special meeting on September 17, 1979, discussed this matter and after hearing comments from the Bio-Environmental Services Staff and from affected industry, voted on a policy in this matter. In the case of sources which are a major emitting facility, as defined in section 17-2.02(70), Florida Administrative Code, any change in operation which will result in increased emissions will require a PSD (Prevention of Significant Deterioration) permit. 7

A 25 million Btu per hour boiler, burning 2.5 percent sulfur oil for 24 hours a day, has the potential to be a sulfur dioxide major emitting facility. If your source is a major emitting facility (see attachment), you should submit the PSD application (Section VII, DER form 17-1.122(16)) together with a check for twenty dollars payable to the Florida Department of Environmental Regulation. You should also provide supporting computer modeling data, showing that, in the case of attainment areas, the PSD increment has not been exceeded nor ambient air quality standards violated, and in the case of non-attainment areas, that ambient air quality has not been significantly impacted. If modeling predicts that there will be any increase in pollutant concentration over baseline, you must also apply for BACT (Section VI, DER form 17-1.122(16) pursuant to the requirements in 17-2.04(6)(c)-PSD. 3

In addition to the foregoing, any application for permit modification to burn higher sulfur grade fuel oil must be accompanied by a letter signed by your fuel oil supplier, attesting that compliance grade oil is unavailable.

If you have any questions, or wish to discuss this matter further, please telephone this office.

Very truly yours,

Walter W. Honour  
Division Chief

WET/kdw



AREA CODE 904 / AIR POLLUTION -633-3303 / WATER POLLUTION -633-3415  
515 WEST 6TH STREET / JACKSONVILLE, FLORIDA 32206



DEPARTMENT OF HEALTH, WELFARE  
ENVIRONMENTAL SERVICES  
Environmental Services Division  
Water Pollution Control



7  
December 5, 1979

Mr. R. W. Harrell  
Manager, Division of Engineering  
SCM Organic Chemicals  
P.O. Box 389  
Jacksonville, Florida 32201

Dear Mr. Harrell:

Per your letter of November 19, 1979, and our phone conversation of November 29, 1979, it is felt that it may be possible to modify your operating permit for boiler #6 to allow burning of up to 1.5% sulfur fuel without a State PSD permit.

The main requirement will be that your total maximum permitted SO<sub>2</sub> emissions will not increase. If this is the case, it is suggested that you re-submit your request to modify the operating permit on #6 boiler to allow the burning of up to 1.5% sulfur fuel and to also set a maximum emission rate from all four boilers. This second condition would be applied to the operating permit conditions for all four boilers. Please specify the maximum SO<sub>2</sub> emission expected on both an annual, daily and hourly rate.

If you have any questions on the above, please let me know.

Very truly yours,

Robert L. Kappelmann, P.E.  
Pollution Control Engineer

RLK/kdw

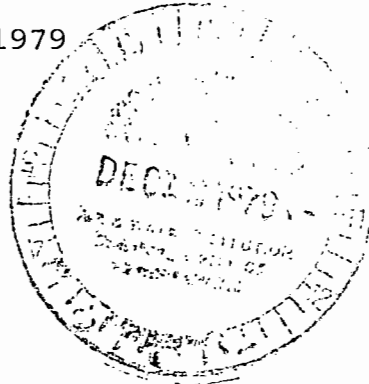




**ORGANIC CHEMICALS**  
DIVISION OF SCM CORPORATION

P. O. BOX 389, JACKSONVILLE, FLA. 32201 (904) 766-1711

December 11, 1979



Mr. Robert L. Kappelmann, P.E.  
Pollution Control Engineer  
Department of Health, Welfare  
& Bio-Environmental Services  
Bio-Environmental Services Division  
Air and Water Pollution Control  
515 West 6th Street  
Jacksonville, Florida 32206

Re: Permit #A016-2367

Dear Mr. Kappelmann:

Mr. R. W. Harrells letter of November 19, 1979 to Mr. Walter B. Honour requested a modification in the above permit conditions to allow the use of 1.5% sulfur fuel oil in the #6 Boiler. The reasons for requesting this modification are given in this letter.

Based on the maximum firing rate, given in the four boiler operating permits assigned to this plant and using EPA Bulletin AP-42, 3rd Edition, the maximum SO<sub>2</sub> emissions allowed for all four boilers is as follows:

<u>Hourly</u>	<u>Daily</u>	<u>Annually</u>	
0.216 Tons	5.18 Tons	1889.4 tons	✓ <i>correct EPA</i>

We are requesting that 1.5% sulfur fuel may be used interchangeably in all four boilers as long as the total emission of SO<sub>2</sub> does not exceed the above figures.

Yours very truly,

*James O. Sewell*

James O. Sewell, P.E.  
Senior Project Engineer

cc: R. W. Harrell  
K. R. Handley  
R. P. Chatham

December 28, 1979

Mr. Doug Dutton  
Sub-District Manager  
Department of Environmental Regulation  
3426 Bills Road  
Jacksonville, Florida 32207

Re: SCM Organics, Boiler Permits

Dear Mr. Dutton:

It is recommended that permit A016-2367 for Boiler #6 be amended to allow the use of 1.5% sulfur fuel oil. In order to prevent an increase in SO<sub>2</sub> emissions from this facility, it is also recommended that each boiler permit listed:

A016-24871 - Boiler #3  
A016-24872 - Boiler #4  
A016-24873 - Boiler #5  
A016-2367 - Boiler #6

be amended to state that the total SO<sub>2</sub> emissions from all four boilers shall not exceed 0.216 T/hr (432 lb/hr) as per Mr. Sewell's letter of December 11, 1979.

Your attention to this matter will be appreciated.

Very truly yours,

E. P. Balducci  
Assistant Engineer

EPB/kdw

Enclosure: SCM letter

Handwritten initials: "C" and "H" with a checkmark above them.

3426 BILLS ROAD  
JACKSONVILLE, FLORIDA 32207



STATE OF FLORIDA

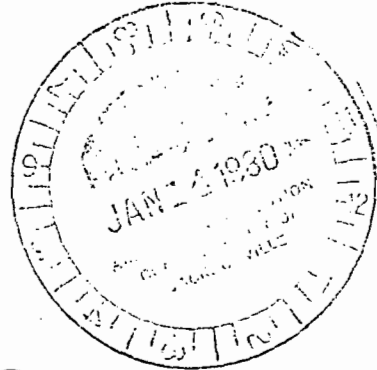
DEPARTMENT OF ENVIRONMENTAL REGULATION  
ST. JOHNS RIVER SUBDISTRICT

January 11, 1980

Mr. Robert W. Harrell  
Manager of Engineering  
SCM Corporation  
Post Office Box 389  
Jacksonville, FL 32201

Dear Mr. Harrell:

Duval County - AP  
SCM Corporation  
Boilers 3, 4 and 5 6



Permits numbered A016-24871, 24872, 24873 and 2367 for boilers #3, 4, 5 and 6, respectively are amended to include the conditions that the total SO<sub>2</sub> emissions from all four boilers shall not exceed 0.216 TPH (432 lbs/hr) or 5.18 TPD or 1889.4 TPY.

#6 ✓ Permit No. A016-2367 for boiler #6 is additionally amended to allow the use of 1.5% sulfur fuel oil.

The above amendments to said permits are based on your November 19, 1979 letter, the December 11, 1979 letter from Mr. Sewell and the recommendations of the Jacksonville Bio-Environmental Services.

Sincerely,

Frank Watkins, Jr., P.E.  
Subdistrict Engineer

FW:jck

cc: BES ✓

TWIN TOWERS OFFICE BUILDING  
2600 BLAIR STONE ROAD  
TALLAHASSEE, FLORIDA 32301



BOB GRAHAM  
GOVERNOR  
JACOB D. VARN  
SECRETARY

STATE OF FLORIDA

## DEPARTMENT OF ENVIRONMENTAL REGULATION

November 5, 1980

Mr. E.P. Balducci  
Assistant Air Engineer  
Department of Health, Welfare  
& Bio-Environmental Services  
Air and Water Pollution Control  
515 West 6th Street  
Jacksonville, Florida 32206

Dear Mr. Balducci:

Thank you for the comments regarding the Preliminary Determination and Departments' proposed action on the boiler installation (AC 16-32394) for SCM Corporation, Jacksonville. Reply to the Bio-Environmental Services staff questions are answered in the same numerical sequence.

- 1) The proposed project was exempt from PSD review according to FAC 17-2.04 (6) (d) (4). The system in this case being a new more efficient boiler resulting in the reduction of air pollutants. The proposed project is exempt from a BACT determination per FAC 17-2.04 (6) (c) since there was no increase in pollutant concentration over the baseline.
- 2) Using the nitrogen content of the fuel as 0.1%, as indicated by SCM on the permit application, then per AP-42.

$$\begin{aligned} \text{lb. NO}_x \text{ per } 10^3 \text{ gal.} &= 22 + 400 (N)^2 \\ &= 22 + 400 (.1)^2 \\ &= 26 \end{aligned}$$

Using a maximum fuel rate of 7.8 barrels per hour,  $\text{NO}_x$  calculations as:

$$7.8 \times 42 \times 26 \times 10^{-3} = 8.5 \text{ lb/hr or } 37.2 \text{ TPY emissions.}$$

The figure shown on the permit conditions will be changed from 37.1 to 37.2 TYP -  $\text{NO}_x$  emissions.

- 3) The list of pollutant emissions in TPY in Section 111-C of the FDER Construction Application were based on the boiler operating 75% of the year. The TPY in Section V of the Department's review are based on full time operation as per application, Section 11-F, these parameters were used to

original typed on 100% recycled paper

calculate the figures in Section V - 1&2 of the Departments reivew.

The report TPY amount of SO<sub>2</sub> as 155.0 should read 168.2 TPY which was the figure used in the review. The correction will be made on the Final Determination.

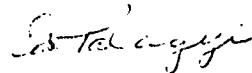
The final permit emissions provisos will be based on 8760 hours per year, as follows:

Particulate	14.8 TPY (No change)
SO <sub>2</sub>	168.6 TPY (Instead of 155.0)
NO <sub>x</sub>	37.2 TPY (Instead of 37.1)

- 4) The, to be retired boiler No. 3 emissions used in the offset analysis were allowed per AC 16-2368 and not a percentage of the bubble emission limit. To be consistant, the SO<sub>2</sub> bubble emission limit shall be reduced accordingly, that is:  
432-44.6 = 387.4 lb/hr.
- 5) The UTM will be corrected to read: E 435.600 and N 3360.750.

The Preliminary Determination will be modified to incorporate the observations made by the Jacksonville Bio-Environmental Staff. A revised copy will be forthcoming.

Sincerely,



Ed Palagyi  
Review Engineer, FDER  
Bureau of Air Quality Management

EP:dav



**SCM ORGANIC CHEMICALS**  
DIVISION OF SCM CORPORATION

P. O. BOX 389, JACKSONVILLE, FLA. 32201 (904) 764-1711

October 2, 1980



Mr. Edward Palagyi  
Department of Environmental Regulation  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32301

Re: AC16-32391

Dear Mr. Palagyi,

I am enclosing five (5) copies of our revised application for a construction permit for No. 7 Boiler marked AC16-32391, Revision 1.

This is for a smaller boiler. All of the location drawings and flow sheets attached to the other application apply to this revision and can be transferred.

Yours very truly,

James O. Sewell, P. E.  
Senior Project Engineer

JOS/mwf

Enclosures

cc: R. W. Harrell



**STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION  
APPLICATION TO OPERATE/CONSTRUCT  
AIR POLLUTION SOURCES**

SOURCE TYPE: Fossil Fuel Steam Generator  New<sup>1</sup>  Existing<sup>1</sup>  
 APPLICATION TYPE:  Construction  Operation  Modification  
 COMPANY NAME: Organic Chemicals Div., SCM Corporation COUNTY: Duval  
 Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peeking Unit No. 2, Gas Fired) NO. 7 Boiler  
 SOURCE LOCATION: Street Foot of West 61st Street City Jacksonville  
 UTM: East 7435600 North 3360750  
 Latitude      °      '      "N Longitude      °      '      "W  
 APPLICANT NAME AND TITLE: R. W. Harrell, Manager of Engineering  
 APPLICANT ADDRESS: P. O. Box 389, Jacksonville, Florida 32201

**SECTION I: STATEMENTS BY APPLICANT AND ENGINEER**

**A. APPLICANT**

I am the undersigned owner or authorized representative\* of SCM Corporation, Organic Chemicals Div.  
Construction

I certify that the statements made in this application for a Construction permit are true, correct and complete to the best of my knowledge and belief. Further, I agree to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provision of Chapter 403, Florida Statutes, and all the rules and regulations of the department and revisions thereof. I also understand that a permit, if granted by the department, will be non-transferable and I will promptly notify the department upon sale or legal transfer of the permitted establishment.

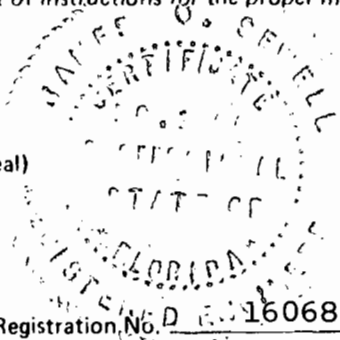
\*Attach letter of authorization

Signed: *R. W. Harrell*  
R. W. Harrell, Manager of Engineering  
 Name and Title (Please Type)  
 Date: 10/3/80 Telephone No. (904)-764-1711

**B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)**

This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.

(Affix Seal)



Signed: *James O. Sewell*  
James O. Sewell  
 Name (Please Type)  
SCM Corporation, Organic Chemicals Div.  
 Company Name (Please Type)  
P. O. Box 389, Jacksonville, Fla. 32201  
 Mailing Address (Please Type)  
 Date: Oct 4, 1980 Telephone No. (904)-764-1711

<sup>1</sup>See Section 17-2.02(15) and (22), Florida Administrative Code, (F.A.C.)



**SECTION II: GENERAL PROJECT INFORMATION**

A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

Replace #3 Boiler with a new (No.7) Boiler, no pollution control equipment is planned. The project will result in full compliance. SO<sub>2</sub> emission from this source will decrease.

B. Schedule of project covered in this application (Construction Permit Application Only)

Start of Construction July, 1981 Completion of Construction December, 1982

C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)

NONE

D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.

NONE

E. Is this application associated with or part of a Development of Regional Impact (DRI) pursuant to Chapter 380, Florida Statutes, and Chapter 22F-2, Florida Administrative Code?      Yes   X   No

F. Normal equipment operating time: hrs/day 24 ; days/wk 7 ; wks/yr 52 ; if power plant, hrs/yr      ; if seasonal, describe:     

G. If this is a new source or major modification, answer the following questions. (Yes or No)

- |   |                     |
|---|---------------------|
| 1. Is this source in a non-attainment area for a particular pollutant?  | <u>Yes</u>          |
| a. If yes, has "offset" been applied?   | <u>See Addendum</u> |
| b. If yes, has "Lowest Achievable Emission Rate" been applied?  | <u>No</u>           |
| c. If yes, list non-attainment pollutants.  |                     |
| <u>Particulate Matter, Volatile Organic Chemicals</u>   |                     |
| 2. Does best available control technology (BACT) apply to this source? If yes, see Section VI.  | <u>No</u>           |
| 3. Does the State "Prevention of Significant Deterioration" (PSD) requirements apply to this source? If yes, see Sections VI and VII. | <u>No</u>           |
| 4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source?  | <u>Yes</u>          |
| 5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source?                                       | <u>No</u>           |

Attach all supportive information related to any answer of "Yes". Attach any justification for any answer of "No" that might be considered questionable.

**SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)**

A. Raw Materials and Chemicals Used in your Process, if applicable: N/A

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		

B. Process Rate, if applicable: (See Section V, Item 1) N/A

1. Total Process Input Rate (lbs/hr): \_\_\_\_\_

2. Product Weight (lbs/hr): \_\_\_\_\_

C. Airborne Contaminants Emitted:

Name of Contaminant	Emission <sup>1</sup>		Allowed Emission <sup>2</sup> Rate per Ch. 17-2, F.A.C.	Allowable <sup>3</sup> Emission lbs/hr	Potential Emission <sup>4</sup>		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
Particulate	3.44	11.30	0.1 lb/MM Btu	4.9	3.44	15.07	
SO <sub>2</sub>	38.55	126.64	0.8 lb/MM Btu	39.20	38.55	168.85	
NOx	8.51	37.27	0.3 lb/MM Btu	14.70	8.51	37.27	

D. Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles <sup>5</sup> Size Collected (in microns)	Basis for Efficiency (Sec. V, It <sup>5</sup> )

<sup>1</sup>See Section V, Item 2.

<sup>2</sup>Reference applicable emission standards and units (e.g., Section 17-2.05(6) Table II, E. (1), F.A.C. – 0.1 pounds per million BTU heat input)

<sup>3</sup>Calculated from operating rate and applicable standard

<sup>4</sup>Emission, if source operated without control (See Section V, Item 3)

<sup>5</sup>If Applicable

E. Fuels

Type (Be Specific)	Consumption* Estimated		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Natural Gas	0.0234	0.0468	49 MM Btu/hr.
No. 6 Oil	3.7	7.79	"
No. 6 Oil blended with by	4.08	8.16	"
Product Oil			

\*Units Natural Gas, MMCF/hr; Fuel Oils, barrels/hr; Coal, lbs/hr

Fuel Analysis: **Typical No. 6 Oil - SEE ADDENDUM FOR ADDITIONAL INFORMATION**

Percent Sulfur: 0.75 Percent Ash: 0.0803

Density: 8.09 lbs/gal Typical Percent Nitrogen: 0.1

Heat Capacity: 18,500 BTU/lb 149,681 BTU/gal

Other Fuel Contaminants (which may cause air pollution): None

F. If applicable, indicate the percent of fuel used for space heating. Annual Average N/A Maximum \_\_\_\_\_

G. Indicate liquid or solid wastes generated and method of disposal.

No solid wastes. Liquid waste - boiler blowdown is discharged to a cooling pit and subsequently to Moncrief Creek by NPDES Permit. Blow-down is estimated at 12 gpm with 2000 sodium salts concentration.

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: EL-45'-0 above grade ft. Stack Diameter: 4'-0" ft.

Gas Flow Rate: 14,100 ACFM Gas Exit Temperature: 350 °F.

Water Vapor Content: 6.9 % Velocity: 18.70 FPS

**SECTION IV: INCINERATOR INFORMATION**

N/A

Type of Waste	Type O (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq & Gas By-prod.)	Type VI (Solid By-prod.)
Lbs/hr Incinerated							

Description of Waste \_\_\_\_\_

Total Weight Incinerated (lbs/hr) \_\_\_\_\_ Design Capacity (lbs/hr) \_\_\_\_\_

Approximate Number of Hours of Operation per day \_\_\_\_\_ days/week \_\_\_\_\_

Manufacturer \_\_\_\_\_

Date Constructed \_\_\_\_\_ Model No. \_\_\_\_\_

N/A

	Volume (ft) <sup>3</sup>	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: \_\_\_\_\_ ft. Stack Diameter \_\_\_\_\_ Stack Temp. \_\_\_\_\_

Gas Flow Rate: \_\_\_\_\_ ACFM \_\_\_\_\_ DSCFM\* Velocity \_\_\_\_\_ FPS

\*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device:  Cyclone  Wet Scrubber  Afterburner  Other (specify) \_\_\_\_\_

Brief description of operating characteristics of control devices: \_\_\_\_\_

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

### SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight – show derivation.
2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).
4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, etc.).
5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3, and 5 should be consistent: actual emissions = potential (1-efficiency).
6. An 8½" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.
7. An 8½" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).
8. An 8½" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

- 9. An application fee of \$20, unless exempted by Section 17-4.05(3), F.A.C. The check should be made payable to the Department of Environmental Regulation.
- 10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

**SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY**

N/A

- A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?  
 Yes  No

Contaminant	Rate or Concentration
_____	_____
_____	_____
_____	_____

- B. Has EPA declared the best available control technology for this class of sources (If yes, attach copy)  Yes  No

Contaminant	Rate or Concentration
_____	_____
_____	_____
_____	_____

- C. What emission levels do you propose as best available control technology?

Contaminant	Rate or Concentration
_____	_____
_____	_____
_____	_____

- D. Describe the existing control and treatment technology (if any).

- |                           |                      |
|---------------------------|----------------------|
| 1. Control Device/System: |                      |
| 2. Operating Principles:  |                      |
| 3. Efficiency: *          | 4. Capital Costs:    |
| 5. Useful Life:           | 6. Operating Costs:  |
| 7. Energy:                | 8. Maintenance Cost: |
| 9. Emissions:             |                      |

Contaminant	Rate or Concentration
_____	_____
_____	_____
_____	_____

\*Explain method of determining D 3 above.

10. Stack Parameters

- a. Height: \_\_\_\_\_ ft.
- b. Diameter: \_\_\_\_\_ ft.
- c. Flow Rate: \_\_\_\_\_ ACFM
- d. Temperature: \_\_\_\_\_ °F
- e. Velocity: \_\_\_\_\_ FPS

E. Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary).

1.

- a. Control Device:
- b. Operating Principles:
  
- c. Efficiency\*:
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy\*:
- h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:
  
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

2.

- a. Control Device:
- b. Operating Principles:
  
- c. Efficiency\*:
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy\*\*:
- h. Maintenance Costs:
- i. Availability of construction materials and process chemicals:
  
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

\*Explain method of determining efficiency.

\*\*Energy to be reported in units of electrical power -- KWH design rate,

3.

- a. Control Device:
- b. Operating Principles:
  
- c. Efficiency\*:
- d. Capital Cost:
- e. Life:
- f. Operating Cost:
- g. Energy:
- h. Maintenance Cost:

\*Explain method of determining efficiency above.

- i. Availability of construction materials and process chemicals:
  - j. Applicability to manufacturing processes:
  - k. Ability to construct with control device, install in available space and operate within proposed levels:
- 4.
- a. Control Device
  - b. Operating Principles:
  - c. Efficiency\*:
  - d. Capital Cost:
  - e. Life:
  - f. Operating Cost:
  - g. Energy:
  - h. Maintenance Cost:
  - i. Availability of construction materials and process chemicals:
  - j. Applicability to manufacturing processes:
  - k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected:

- 1. Control Device:
- 2. Efficiency\*:
- 3. Capital Cost:
- 4. Life:
- 5. Operating Cost:
- 6. Energy:
- 7. Maintenance Cost:
- 8. Manufacturer:
- 9. Other locations where employed on similar processes:

- a.
  - (1) Company:
  - (2) Mailing Address:
  - (3) City:
  - (4) State:
  - (5) Environmental Manager:
  - (6) Telephone No.:

\*Explain method of determining efficiency above.

- (7) Emissions\*:

Contaminant	Rate or Concentration

- (8) Process Rate\*:

- b.
  - (1) Company:
  - (2) Mailing Address:
  - (3) City:
  - (4) State:

\*Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

- i. Availability of construction materials and process chemicals:
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space and operate within proposed levels:

4.

- a. Control Device
- b. Operating Principles:
- c. Efficiency\*:
- d. Capital Cost:
- e. Life:
- f. Operating Cost:
- g. Energy:
- h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected:

- 1. Control Device:
- 2. Efficiency\*:
- 3. Capital Cost:
- 4. Life:
- 5. Operating Cost:
- 6. Energy:
- 7. Maintenance Cost:
- 8. Manufacturer:
- 9. Other locations where employed on similar processes:
- a.
  - (1) Company:
  - (2) Mailing Address:
  - (3) City:
  - (4) State:
  - (5) Environmental Manager:
  - (6) Telephone No.:

\*Explain method of determining efficiency above.

- (7) Emissions\*:

Contaminant	Rate or Concentration

- (8) Process Rate\*:

b.

- (1) Company:
- (2) Mailing Address:
- (3) City:
- (4) State:

\*Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.



SECTION VII – PREVENTION OF SIGNIFICANT DETERIORATION

N/A

A. Company Monitored Data

1. \_\_\_\_\_ no sites \_\_\_\_\_ TSP \_\_\_\_\_ ( ) SO2\* \_\_\_\_\_ Wind spd/dir
Period of monitoring \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ to \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_
month day year month day year

Other data recorded \_\_\_\_\_

Attach all data or statistical summaries to this application.

2. Instrumentation, Field and Laboratory

a) Was instrumentation EPA referenced or its equivalent? \_\_\_\_\_ Yes \_\_\_\_\_ No

b) Was instrumentation calibrated in accordance with Department procedures? \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_ Unknown

B. Meteorological Data Used for Air Quality Modeling

1. \_\_\_\_\_ Year(s) of data from \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ to \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_
month day year month day year

2. Surface data obtained from (location) \_\_\_\_\_

3. Upper air (mixing height) data obtained from (location) \_\_\_\_\_

4. Stability wind rose (STAR) data obtained from (location) \_\_\_\_\_

C. Computer Models Used

1. \_\_\_\_\_ Modified? If yes, attach description.

2. \_\_\_\_\_ Modified? If yes, attach description.

3. \_\_\_\_\_ Modified? If yes, attach description.

4. \_\_\_\_\_ Modified? If yes, attach description.

Attach copies of all final model runs showing input data, receptor locations, and principle output tables.

D. Applicants Maximum Allowable Emission Data

Table with 2 columns: Pollutant, Emission Rate. Rows for TSP and SO2 with units in grams/sec.

E. Emission Data Used in Modeling

Attach list of emission sources. Emission data required is source name, description on point source (on NEDS point number), UTM coordinates, stack data, allowable emissions, and normal operating time.

F. Attach all other information supportive to the PSD review.

\*Specify bubbler (B) or continuous (C).

G. Discuss the social and economic impact of the selected technology versus other applicable technologies (i.e., jobs, payroll, production, taxes, energy, etc.). Include assessment of the environmental impact of the sources.

H. Attach scientific, engineering, and technical material, reports, publications, journals, and other competent relevant information describing the theory and application of the requested best available control technology.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions\*:

Contaminant	Rate or Concentration
<hr/>	<hr/>
<hr/>	<hr/>
<hr/>	<hr/>

(8) Process Rate\*:

10. Reason for selection and description of systems:

\*Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

The existing No. 3 Boiler (Permit No. A016-24871) is to be demolished. This includes the stack. A new boiler (No.7) will occupy the space presently used by No. 3 Boiler.

The boiler fuel for No. 7 will be Natural Gas, No. 6 Oil, or No. 6 Oil plus By-product Oil, No.7 will have the capability to fire these fuels separately or simultaneously. It is requested that this source be permitted for alternate fuel usage using any of these fuels either singly or in any combination. Based on experience with the No. 3 Boiler, which has the same capability, the worst type of fuel with regard to emissions is the blend of No. 6 Oil and By-product Oil. Accordingly all stack test work has been done on this fuel. This blend is made with a minimum 50% No. 6 Oil.

The No. 3 Boiler is an existing source and as such is permitted to burn 1.5% sulfur oil. Table No. 1 below gives potential emissions based on No. 3 Boiler with 1.5% Sulfur Oil and No. 7 Boiler with 0.75% Sulfur Oil. This table gives the offset claimed as a result of the demolition of No. 3 Boiler. Calculations were made based on AP42.

TABLE NO. 1

<u>Emission</u>	<u>*No. 3 Boiler</u>	<u>*No. 7 Boiler</u>	<u>Increase</u>		
			<u>lb/hr.</u>	<u>lb/day</u>	<u>Tpy</u>
Particulate	4.42	3.44	(0.98)	( 23.52)	( 4.29)
SO <sub>2</sub>	58.77	38.55	(20.54)	(485.84)	(88.67)
NOx	7.05	8.51	1.45	34.80	6.35
VOC	0.271	0.327	0.056	1.34	0.25

\* Pounds per hour

Based on the potential emissions as shown in Table No. 1 both Particulate and SO<sub>2</sub> show a decrease due to the installation of No. 7 Boiler. This should exempt the proposed source from PSD review and the subsequent modeling or monitoring.

The Actual Emissions as shown in Section III C were calculated at 75% of the potential emissions. This is the expected operating rate of this boiler.

Fuels Analysis

(a) No. 6 Oil and By-product Oils

% S - 0.75 max.

Density - 7.5 lb/gal.

% Ash - 0.25

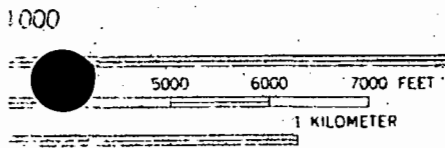
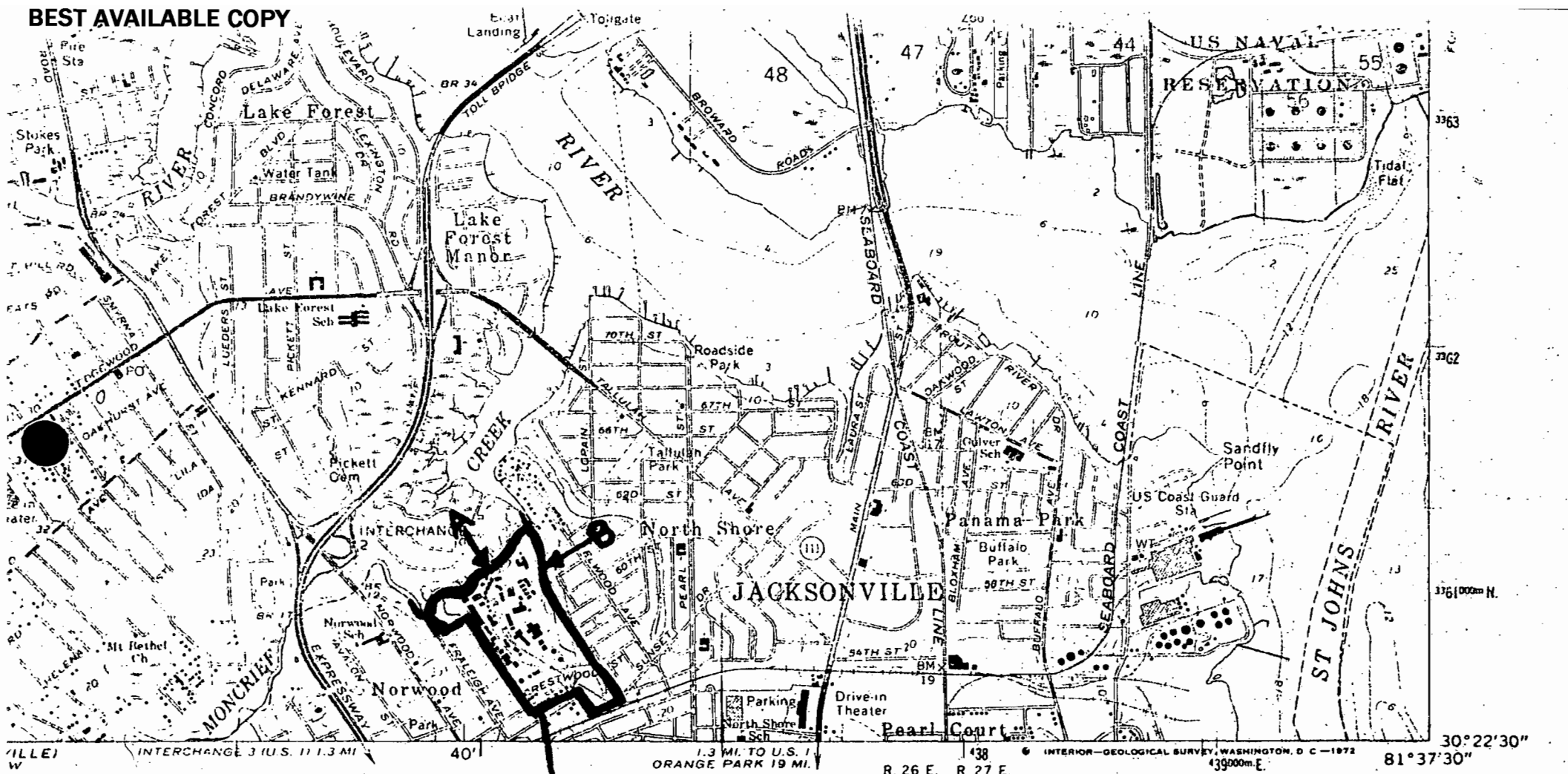
% Nitrogen - Oil

Heat Value - 19,000 Btu/lb.

143,000 Btu/gal.

(b) Natural Gas - No analysis available from supplier

Heat Value 1047 Btu/ft<sup>3</sup>



VERTICAL DATUM IS MEAN LOW WATER  
APPROXIMATE LINE OF MEAN HIGH WATER  
APPROXIMATELY 1 FOOT

MAP ACCURACY STANDARDS  
SURVEY, WASHINGTON, D. C. 20242  
ADDITIONAL SYMBOLS IS AVAILABLE ON REQUEST

**A-D002**  
**B-D003**  
**SCM PLANT**  
**ENCLOSED AREA**



QUADRANGLE LOCATION  
**SCM CORPORATION**  
**ORGANIC CHEMICALS DIVISION**  
**PLANT LOCATION**  
 DATE 12-21-78  
 APPROVED *[Signature]*  
 NO. S-5000-26

**ROAD CLASSIFICATION**

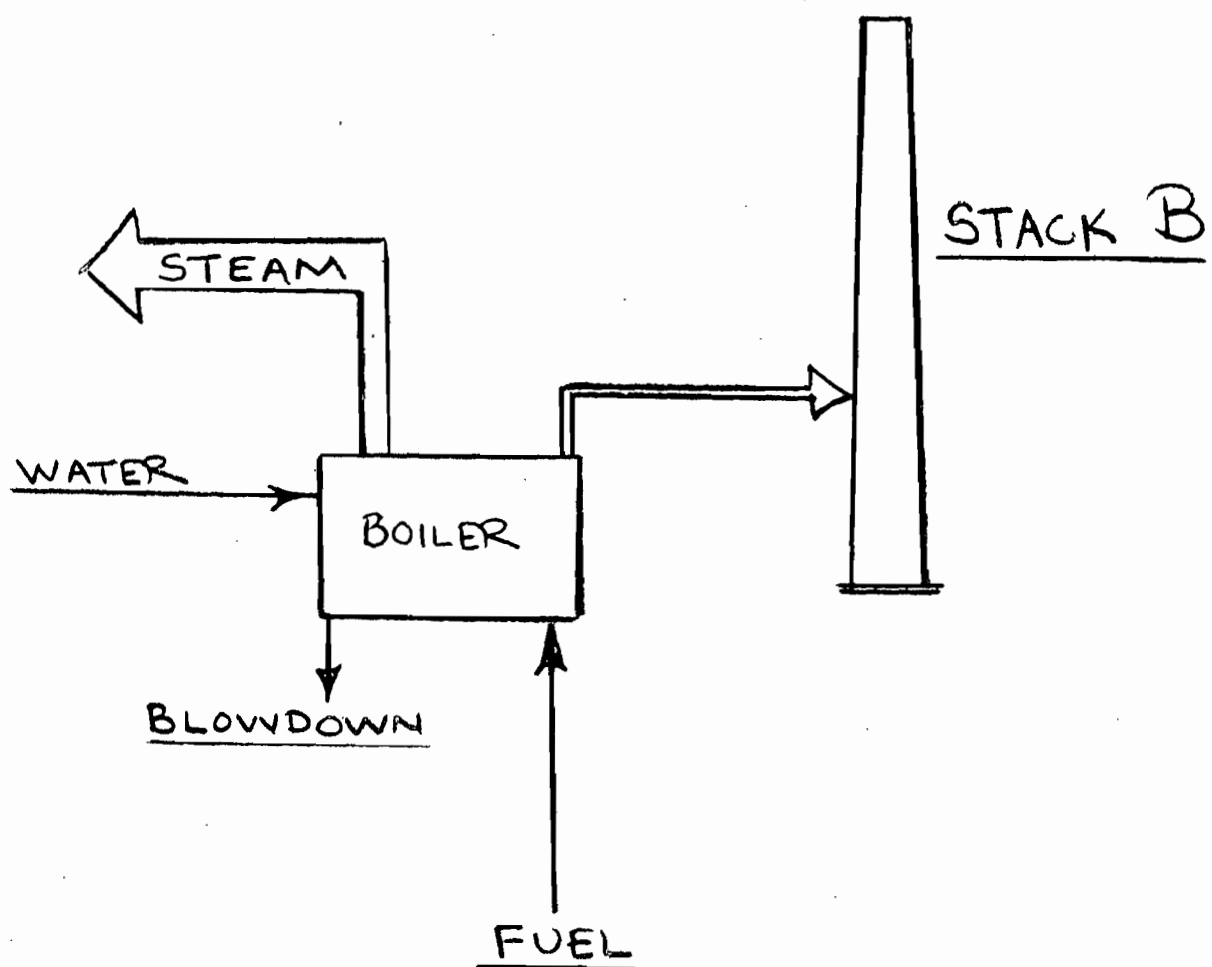
Heavy-duty ——— Light-duty ———  
 Medium-duty ——— Unimproved dirt - - - - -

○ Interstate Route    ◻ U. S. Route    ○ State Route

**TROUT RIVER, FLA.**  
 N3022.5—W8137.5/7.5  
 1954  
 PHOTOREVISED 1970  
 AMS 4644 ; NW—SERIES V847

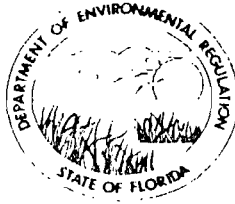
#7 BOILER (REPLACES #3.  
#1 and #2 REMOVED LATE 60'S)

JUNE 27, 1980



- FUEL :
- ① NATURAL GAS
  - ② NO. 6 OIL
  - ③ NO. 6 OIL + BY-PRODUCTS
  - (or)
  - ④ ① PLUS ② ABOVE
  - (or)
  - ⑤ ① PLUS ③ ABOVE

TWIN TOWERS OFFICE BUILDING  
2600 BLAIR STONE ROAD  
TALLAHASSEE, FLORIDA 32301



BOB GRAHAM  
GOVERNOR

JACOB D. VARN  
SECRETARY

STATE OF FLORIDA

**DEPARTMENT OF ENVIRONMENTAL REGULATION**

July 17, 1980

CERTIFIED MAIL

Mr. Robert W. Harrell  
Manager of Engineering  
Organic Chemicals Division  
SCM Corporation  
P. O. Box 389  
Jacksonville, Florida 32201

Dear Mr. Harrell:

The Department of Environmental Regulation has received and reviewed for completeness your application for a permit to install a Fossil Fuel Steam Generator replacing an existing unit (Permit A016-24871). The application is incomplete requiring additional information and clarification of data given on the application.

Following is a list of the additional information that will be required to complete this application.

1. The Emission (Maximum/Actual) of Airborne contaminants data requested in Section 111-C needs to be provided. Section V-2 of the application requires an estimate of emission under normal operating conditions with some basis for these emissions.
2. The sketch attached to the application indicates the boiler fuel would be Natural Gas, No. 6 Oil, No. 6 Oil plus By Product Oil or gas and oil simultaneously. It is not required that the applicant specify particular amounts of fuel mixtures that are available to him. However, if the source is to be permitted for alternative fuel usage, the worst case would be considered to determine the maximum emissions of each pollutant that could result from burning the various fuels mentioned. If limits on the various types of fuel to be burned are requested, the emission estimates will be adjusted accordingly.
3. The fuel analysis for the three types of fuel to be used, Natural Gas, No. 6 Oil and No. 6 Oil plus By Product Oil, indicating the blend ratio of No. 6 Oil to By Product Oil. (See Section 111-E of Application).

Mr. Harrell  
July 17, 1980  
Page Two

4. This source has been requested to be permitted for blended fuel oil containing .72% sulfur. When only using No. 6 oil, what will be the maximum percent sulfur content?

5. Will this boiler use the same emissions stack utilized by the boiler being replaced? Furnish the Emission Stack Geometry and Flow Characteristics. (See Section 111-H of application

6. The proposed project will result in an increase in potential emissions of particulate and sulfur dioxide from a facility which is already a major emitter of both pollutants. Therefore, the project is subject to section 17-2.04(6) F.A.C. (PSD review) which calls for the owner or applicant to affirmatively provide the Department with reasonable assurance that emissions from the facility will not cause or contribute to ground-level concentrations in excess of any ambient air quality standard or PSD increment. Normally this assurance is provided by an air quality modeling analysis carried out in accordance with EPA and state-approved guidelines on air quality models. At a minimum, the analysis must demonstrate that (1) the new source, in combination with other increment-consuming sources at the facility, will not contribute to a violation of a PSD increment and (2) the new source, in combination with all sources at the facility plus extant background concentrations, will not contribute to a violation of an ambient air quality standard.

As soon as the missing information is received, the Department will begin processing the application.

Sincerely,

Steve Smallwood, Chief  
Bureau of Air Quality Management

SS:caa

cc: Mr. Johnny Cole  
Mr. Robert Kappelmann

3426 BILLS ROAD  
JACKSONVILLE, FLORIDA 32207



STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION  
ST. JOHNS RIVER SUBDISTRICT

January 11, 1980

Mr. Robert W. Harrell  
Manager of Engineering  
SCM Corporation  
Post Office Box 389  
Jacksonville, FL 32201

Dear Mr. Harrell:

Duval County - AP  
SCM Corporation  
Boilers 3, 4 and 5 6

Permits numbered A016-24871, 24872, 24873 and 2367 for boilers #3, 4, 5 and 6, respectively are amended to include the conditions that the total SO<sub>2</sub> emissions from all four boilers shall not exceed 0.216 TPH (432 lbs/hr) or 5.18 TPD or 1889.4 TPY.

#6 ✓ Permit No. A016-2367 for boiler #6 is additionally amended to allow the use of 1.5% sulfur fuel oil.

The above amendments to said permits are based on your November 19, 1979 letter, the December 11, 1979 letter from Mr. Sewell and the recommendations of the Jacksonville Bio-Environmental Services.

Sincerely,

Frank Watkins, Jr., P.E.  
Subdistrict Engineer

FW:jck

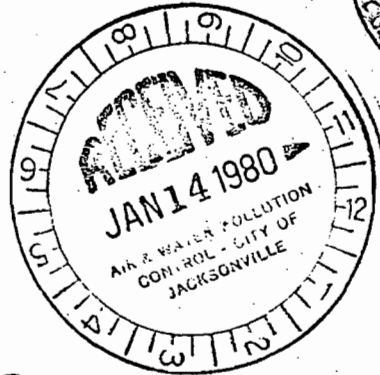
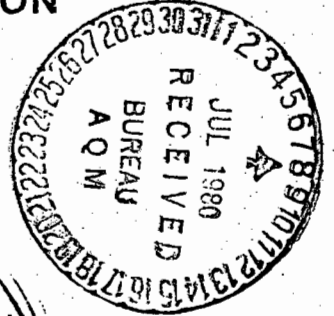
cc: BES ✓

*Bayly*  
*Kapp*  
*Baldner*

BOB GRAHAM  
GOVERNOR

JACOB D. VARN  
SECRETARY

G. DOUG DUTTON  
SUBDISTRICT MANAGER







UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET  
ATLANTA, GEORGIA 30308

JUL 8 1980

REF: 4AH-AF

Mr. James O. Sewell, Senior Project Engineer  
Organic Chemicals  
Division of SCM Corporation  
P. O. Box 389  
Jacksonville, FL 32201

Dear Mr. Sewell:

This letter is to confirm our telephone conversation of July 7, 1980 addressing federal PSD requirements for SCM's proposed new boiler. Based on the information you have supplied, the modification would be subject to PSD under the partial Stay of the existing regulations. The Stay, issued February 5, 1980, exempted certain sources from PSD review - basically those sources that would not require a permit under replacement regulations that would comport with the Alabama Power opinion.

Because of uncontrolled SO<sub>2</sub> emissions from the new boiler of 311 tons per year, the modification would be subject to the "old" or existing regulations, FR Vol. 43, No. 118, June 19, 1978. In addition, since the net increase in SO<sub>2</sub> emissions is 21.64 tons per year, at a major stationary source of SO<sub>2</sub>, the modification would be subject to the proposed regulations (FR Vol. 44, No. 173, September 5, 1979). This is a result of the net increase being above the de minimis level of 10 tons per year. Consequently, as a result of the partial Stay (FR Vol. 45, No. 25, February 5, 1980), the source would be subject to PSD review under the June 19, 1978 regulations.

You should be aware, however, that final regulations are to be promulgated on or before July 28, 1980. PSD applicability may change as a result of the language in the final rule. I hope that this information has been helpful. If you have further questions do not hesitate to contact me.

Sincerely yours,

*K Williams*

Kent C. Williams  
Chief  
New Source Review Section  
Air Facilities Branch

*cc Il.*

DEPARTMENT OF HEALTH, WELFARE  
& BIO-ENVIRONMENTAL SERVICES  
Bio-Environmental Services Division  
Air and Water Pollution Control



July 3, 1980

Mr. Carl Bock  
DER/Bureau of Air Quality Management  
Twin Towers Office Bldg.  
2600 Blair Stone Road  
Tallahassee, FL 32301

Dear Mr. Bock:

Enclosed is a history of SCM Corporation's request to burn higher sulfur fuel, as we discussed by telephone on July 2, 1980. Please note, that according to Mr. R. W. Harrell's November 19, 1980 letter, #6 fuel oil with less than 1.5% sulfur was not available at that time. It evidently is now available since they have requested to burn 0.7% sulfur.

If I can be of further assistance, please call me at 633-3033.

Very truly yours,

E. P. Balducci  
Assistant Engineer

EPB/cf

Enclosure



December 28, 1979

Mr. Doug Dutton  
Sub-District Manager  
Department of Environmental Regulation  
3426 Bills Road  
Jacksonville, Florida 32207

Re: SCM Organics, Boiler Permits

Dear Mr. Dutton:

It is recommended that permit A016-2367 for Boiler #6 be amended to allow the use of 1.5% sulfur fuel oil. In order to prevent an increase in SO<sub>2</sub> emissions from this facility, it is also recommended that each boiler permit listed:

A016-24871 - Boiler #3  
A016-24872 - Boiler #4  
A016-24873 - Boiler #5  
A016-2367 - Boiler #6

be amended to state that the total SO<sub>2</sub> emissions from all four boilers shall not exceed 0.216 T/hr (432 lb/hr) as per Mr. Sewell's letter of December 11, 1979.

Your attention to this matter will be appreciated.

Very truly yours,

E. P. Balducci  
Assistant Engineer

EPB/kdw

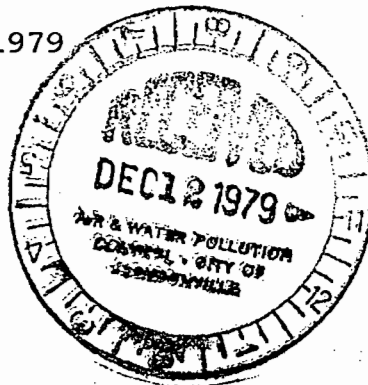
Enclosure: SCM letter

Handwritten initials: A, B, C, D

Handwritten mark: a curved line

P. O. BOX 389, JACKSONVILLE, FLA. 32201 (904) 764-1711

December 11, 1979



Mr. Robert L. Kappelmann, P.E.  
Pollution Control Engineer  
Department of Health, Welfare  
& Bio-Environmental Services  
Bio-Environmental Services Division  
Air and Water Pollution Control  
515 West 6th Street  
Jacksonville, Florida 32206

Re: Permit #A016-2367

Dear Mr. Kappelmann:

Mr. R. W. Harrells letter of November 19, 1979 to Mr. Walter B. Honour requested a modification in the above permit conditions to allow the use of 1.5% sulfur fuel oil in the #6 Boiler. The reasons for requesting this modification are given in this letter.

Based on the maximum firing rate, given in the four boiler operating permits assigned to this plant and using EPA Bulletin AP-42, 3rd Edition, the maximum SO<sub>2</sub> emissions allowed for all four boilers is as follows:

<u>Hourly</u>	<u>Daily</u>	<u>Annually</u>
0.216 Tons	5.18 Tons	1889.4 tons

✓ correct  
EPB

We are requesting that 1.5% sulfur fuel may be used interchangeably in all four boilers as long as the total emission of SO<sub>2</sub> does not exceed the above figures.

Yours very truly,

*James O. Sewell*

James O. Sewell, P.E.  
Senior Project Engineer

cc: R. W. Harrell  
K. R. Handley  
R. P. Chatham

DEPARTMENT OF HEALTH, WELFARE  
& BIO-ENVIRONMENTAL SERVICES  
Bio-Environmental Services Division  
Air and Water Pollution Control



7  
December 7, 1979

Mr. R. W. Harrell  
Manager, Division of Engineering  
SCM Organic Chemicals  
P.O. Box 389  
Jacksonville, Florida 32201

Dear Mr. Harrell:

Per your letter of November 19, 1979, and our phone conversation of November 29, 1979, it is felt that it may be possible to modify your operating permit for boiler #6 to allow burning of up to 1.5% sulfur fuel without a State PSD permit. (H) (2)

The main requirement will be that your total maximum permitted SO<sub>2</sub> emissions will not increase. If this is the case, it is suggested that you re-submit your request to modify the operating permit on #6 boiler to allow the burning of up to 1.5% sulfur fuel and to also set a maximum emission rate from all four boilers. This second condition would be applied to the operating permit conditions for all four boilers. Please specify the maximum SO<sub>2</sub> emission expected on both an annual, daily and hourly rate. C

If you have any questions on the above, please let me know.

Very truly yours,

Robert L. Kappelmann, P.E.  
Pollution Control Engineer

RLK/kdw



DEPARTMENT OF HEALTH, WELFARE  
& BIO-ENVIRONMENTAL SERVICES  
Bio-Environmental Services Division  
Air and Water Pollution Control



November 28, 1979

Mr. R. W. Harrell  
Manager, Division of Engineering  
SCM Organic Chemicals  
P.O. Box 389  
Jacksonville, Florida 32201

Re: Boiler #6, A016-2367, November 19,  
1979, request to burn higher sulfur  
fuel.

Dear Mr. Harrell:

In response to your recent request for permission to burn higher sulfur grade fuel oils, the Jacksonville Environmental Protection Board, at a special meeting on September 17, 1979, discussed this matter and after hearing comments from the Bio-Environmental Services Staff and from affected industry, voted on a policy in this matter. In the case of sources which are a major emitting facility, as defined in section 17-2.02(70), Florida Administrative Code, any change in operation which will result in increased emissions will require a PSD (Prevention of Significant Deterioration) permit. 7

A 25 million Btu per hour boiler, burning 2.5 percent sulfur oil for 24 hours a day, has the potential to be a sulfur dioxide major emitting facility. If your source is a major emitting facility (see attachment), you should submit the PSD application (Section VII, DER form 17-1.122(16)) together with a check for twenty dollars payable to the Florida Department of Environmental Regulation. You should also provide supporting computer modeling data, showing that, in the case of attainment areas, the PSD increment has not been exceeded nor ambient air quality standards violated, and in the case of non-attainment areas, that ambient air quality has not been significantly impacted. If modeling predicts that there will be any increase in pollutant concentration over baseline, you must also apply for BACT (Section VI, DER form 17-1.122(16)) pursuant to the requirements in 17-2.04(6)(c)-PSD. 3

In addition to the foregoing, any application for permit modification to burn higher sulfur grade fuel oil must be accompanied by a letter signed by your fuel oil supplier, attesting that compliance grade oil is unavailable.

If you have any questions, or wish to discuss this matter further, please telephone this office.

Very truly yours,

Walter W. Honour  
Division Chief

WET/kdw



AREA CODE 904 / AIR POLLUTION -633-3303 / WATER POLLUTION -633-3415  
515 WEST 6TH STREET / JACKSONVILLE, FLORIDA 32206



**ORGANIC CHEMICALS**  
DIVISION OF SCM CORPORATION

P. O. BOX 369, JACKSONVILLE, FLA. 32201 (904) 764-1711

November 19, 1979

Mr. Walter W. Honour, Division Chief  
City of Jacksonville  
Department of Health, Welfare, and  
Bio-Environmental Services  
Air & Water Pollution Control Activity  
515 West Sixth Street  
Jacksonville, Florida 32206



Re: #A016-2367 - No. 6 Boiler

Dear Mr. Honour:

We burn both Natural Gas and #6 Fuel Oil in our boilers at our Jacksonville Plant. Our #3, #4, and #5 Boilers are permitted for 1.5% Sulfur, #6 Fuel Oil and our #6 Boiler has a current permit for 0.7% Sulfur Fuel Oil.

As you are aware, #6 Fuel Oil with less than 1.5% sulfur is not available and we have to mix Natural Gas and 1.5% Sulfur - #6 Fuel Oil in our #6 Boiler in order to meet the above requirements.

During cold weather the low gas pressure on the Peoples Gas Company pipeline may prevent us from averaging the sulfur level to our permit condition. We, therefore, must request that our permit for #6 Boiler be changed to 1.5% Sulfur, the same as our other boilers. This boiler, when operating at maximum capacity uses 151,920#/day of #6 Fuel Oil. The additional sulfur would therefore be only  $(151,920 \times (0.015 - 0.007))$  or 1215#/day.

Continued

Mr. Walter W. Honour, Division Chief  
City of Jacksonville  
November 19, 1979  
Page -2-

This situation may become a crisis if Natural Gas should become unavailable. Please call me if you have any questions.

Very truly yours,



R. W. Harrell  
Manager, Division Engineering

RWH/mwf

cc: G. L. Dickens  
R. P. Chatham  
K. R. Handley  
W. B. Stoufer



**SCM ORGANIC CHEMICALS**  
DIVISION OF SCM CORPORATION

P. O. BOX 389, JACKSONVILLE, FLA. 32201 • (904) 764-1711

June 27, 1980

Mr. William Thomas  
Department of Environmental Regulation  
2600 Blainstone Rd.  
Tallahassee, Florida 32301



Re: No. 7 Boiler Construction Permit

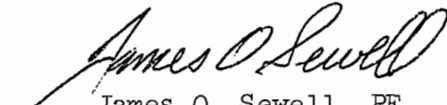
Dear Mr. Thomas:

As you suggested in our telephone conversation of June 20, 1980, I am sending copies of our construction permit application for a boiler. We have at the present time four (4) small boilers individually permitted. We are proposing to replace our No. 3 boiler (A016-24871) with a new boiler.

In addition I am enclosing a copy of my letter to EPA asking for a determination if PSD will be required.

If you have any questions or believe that it would help for me to come to Tallahassee please do not hesitate to contact me.

Yours very truly,

  
James O. Sewell, PE  
Senior Project Engineer

cc: Mr. R. W. Harrell

June 13, 1980

Mr. Thomas Gibbs  
Environmental Protection Agency  
345 Courtland  
Atlanta, Georgia 30365

Dear Mr. Gibbs:

Mr. Kent Williams suggested, in our telephone conversation of 6-12-80, that I write to you asking for a determination if, "Prevention of Significant Deterioration" would be required for our proposed boiler. The following information was requested by Mr. Williams:

1. Source to be replaced:

Our No. 3 Boiler, Permit No. A016-24871

This is a gas and/or oil fired steam generating boiler permitted for 40.6 MM BTU/hr.

Allowable emissions are:

Particulate	0.1 lbs/MM BTU
SO <sub>2</sub>	1.65 lbs/MM BTU
NOx	0.30 lbs/MM BTU

2. Other existing sources at this site:

- (a) No. 4 Boiler, Permit No. A016-24872, same emission rates as #3
- (b) No. 5 Boiler, Permit No. A016-24873, same emission rates as #3
- (c) No. 6 Boiler, Permit No. A016-2367, same emission rates as #3 except SO<sub>2</sub> = 0.8 lbs/MM BTU

3. Proposed unit:

This is to be a gas and/or oil fired steam generator permitted for 90 MM BTU/hr.

Continued

Mr. Thomas Gibbs  
Environmental Protection Agency  
June 13, 1980  
Page -2-

4. Incremental increase in emissions is as follows:

- a. Particulate -  $(90 - 40.6) 0.1 = 4.94 \text{ lb/hr.}$  or  
 $4.94 \times 360 \times 24/2000 = 21.34 \text{ tons/yr.}$  ✓ 1.5
- b.  $\text{SO}_2$  -  $90 \times 0.8 - 40.6 \times 1.65 = 72 - 66.99 = 5.01 \text{ lb/hr.}$  ✓ 1.1-1.0  
 $90 \times 1.0 - \dots = 90 - 66.99 = 21.64 \text{ tons/yr.}$
- c.  $\text{NOx}$  -  $(90-40.6) 0.3 = 14.82 \text{ lb/hr.}$  ✓ 99.4 Tons/yr  
 $64.02 \text{ tons/yr.}$
- d. Hydrocarbons -  $(90-40.6) \text{ MM BTU/hr. } 138,400 \text{ BTU/gal.} =$   
 $375 \text{ gal/hr. fuel oil} = 3,090,173 \text{ gal/yr.}$

From AP42 HC emissions =  $1 \text{ lb}/10^3 \text{ gal.}$   
HC Emissions =  $3090 \text{ lbs/yr.} = 1.55 \text{ tons/yr.}$

If there are any questions please contact me at this address, or  
(904)-764-1711.

Yours very truly,

James O. Sewell, P.E.  
Senior Project Engineer

JOS/mwf

cc: R. W. Harrell

DER PERMIT APPLICATION TRACKING SYSTEM MASTER RECORD

FILE#000006032394 COE# DER PROCESSOR:SVEC DER OFFICE:TLH  
 FILE NAME:SCM CORP./ORG. CHEM. DIV.DATE FIRST REC: 07/01/80 APPLICATION TYPE:AC  
 APPL NAME:HARRELL, R.W. APPL PHONE:(904)764-1711 PROJECT COUNTY:16  
 ADDR:P.O. BOX 389 CITY:JACKSONVILLE ST:FLZIP:32204  
 AGNT NAME:SEWELL, JAMES O. AGNT PHONE:(904)764-1711  
 ADDR:P.O. BOX 389 CITY:JACKSONVILLE ST:FLZIP:32204

ADDITIONAL INFO REQ: / / / / / / REC: / / / / / /  
 APPL COMPLETE DATE: / / COMMENTS NEC:Y DATE REQ: / / DATE REC: / /  
 LETTER OF INTENT NEC:Y DATE WHEN INTENT ISSUED: / / WAIVER DATE: / /

HEARING REQUEST DATES: / / / / / /  
 HEARING WITHDRAWN/DENIED/ORDER -- DATES: / / / / / /  
 HEARING ORDER OR FINAL ACTION DUE DATE: / / MANUAL TRACKING DESIRED:N

THIS RECORD HAS BEEN SUCCESSFULLY ADDED

FEE PD DATE#1:07/01/80 \$0020 RECEIPT#00033541 REFUND DATE: / / REFUND \$  
 FEE PD DATE#2: / / \$ RECEIPT# REFUND DATE: / / REFUND \$  
 APPL:ACTIVE/INACTIVE/DENIED/WITHDRAWN/TRANSFERRED/EXEMPT/ISSUED:AC DATE:07/01/80  
 REMARKS: #7 BOILER, GAS AND/OR OIL FIRED STEAM GENERATING BOILER. AT FOOT OF W.  
 61ST ST. UTM = 435.600 E. / 3360.750 N. , LAT/LON = 32DEG. 72MIN. 45SEC. NORIH  
 84DEG. 39MIN. 50SEC. WEST. TO REPLACE EXISTING BOILER #3. 90MMBTU.

STATE OF FLORIDA  
 DEPARTMENT OF ENVIRONMENTAL REGULATION

No. 33541

RECEIPT FOR APPLICATION FEES AND MISCELLANEOUS REVENUE

Received from SCM CHEMICALS (#7 NGC-OIL MILLER) Date 1 JULY 1980  
 Address W. 61<sup>ST</sup> ST. JACKSONVILLE, FL. Dollars \$ 20<sup>00</sup>  
 Applicant Name & Address HARRELL, R.W., P.O. Box 389, JACKSONVILLE, FL. 32201  
 Source of Revenue \_\_\_\_\_

Revenue Code 0101 Application Number AC 16-32394

By M. [Signature]

MO.	DAY	DESCRIPTION	INVOICE	GROSS	DISCOUNT	NET
06	25			20.00		20.00
DETACH BEFORE DEPOSITING		SCM CORPORATION	TOTALS	\$20.00		\$20.00



STATE OF FLORIDA  
 DEPARTMENT OF ENVIRONMENTAL REGULATION  
 APPLICATION TO OPERATE/CONSTRUCT  
 AIR POLLUTION SOURCES

SOURCE TYPE: Fossil Fuel Steam Generator  New<sup>1</sup>  Existing<sup>1</sup>

APPLICATION TYPE:  Construction  Operation  Modification

COMPANY NAME: Organic Chemicals Div, SCM Corporation COUNTY: Duval

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peeking Unit No. 2, Gas Fired) No. 7 Boiler

SOURCE LOCATION: Street Foot of West 61st Street City Jacksonville  
 UTM: East 7435 600 North 3360 750  
 Latitude 32 ° 72 ' 45 " N Longitude 81 ° 39 ' 50 " W

APPLICANT NAME AND TITLE: R. W. Harrell, Manager of Engineering

APPLICANT ADDRESS: P. O. Box 389, Jacksonville, Florida 32201

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative\* of SCM Corporation, Organic Chemicals Div.

I certify that the statements made in this application for a Fossil Fuel Steam Generation permit are true, correct and complete to the best of my knowledge and belief. Further, I agree to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provision of Chapter 403, Florida Statutes, and all the rules and regulations of the department and revisions thereof. I also understand that a permit, if granted by the department, will be non-transferable and I will promptly notify the department upon sale or legal transfer of the permitted establishment.

\*Attach letter of authorization

Signed: *R. W. Harrell*  
R. W. Harrell, Manager of Engineering  
 Name and Title (Please Type)

Date: 6/27/80 Telephone No. 904-764-1711

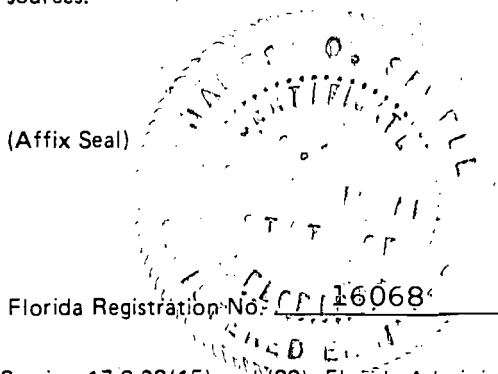
B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)

This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.

Signed: *James O. Sewell*  
James O. Sewell  
 Name (Please Type)

SCM Corporation  
 Company Name (Please Type)  
P. O. Box 389 Jacksonville, Fla. 32201  
 Mailing Address (Please Type)

Date: June 25, 1980 Telephone No. 904-764-1711



<sup>1</sup>See Section 17-2.02(15) and (22), Florida Administrative Code, (F.A.C.)

SECTION II: GENERAL PROJECT INFORMATION

A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.  
Replace #3 Boiler (40.5 MM BTU/hr.) with a new 90MM BTU/hr. boiler.  
No pollution control equipment is planned.

B. Schedule of project covered in this application (Construction Permit Application Only)  
 Start of Construction January 1982 Completion of Construction December 1982

C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)  
NONE

D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.  
NONE

E. Is this application associated with or part of a Development of Regional Impact (DRI) pursuant to Chapter 380, Florida Statutes, and Chapter 22F-2; Florida Administrative Code?      Yes   X   No

F. Normal equipment operating time: hrs/day 24 ; days/wk 7 ; wks/yr 52 ; if power plant, hrs/yr      ;  
 if seasonal, describe:     

G. If this is a new source or major modification, answer the following questions. (Yes or No)

1. Is this source in a non-attainment area for a particular pollutant? Yes  
 a. If yes, has "offset" been applied? Yes  
 b. If yes, has "Lowest Achievable Emission Rate" been applied? TO BE DETERMINED  
 c. If yes, list non-attainment pollutants.  
Particulate, Hydrocarbons

2. Does best available control technology (BACT) apply to this source? If yes, see Section VI. Application enclosed  
 3. Does the State "Prevention of Significant Deterioration" (PSD) requirements apply to this source? If yes, see Sections VI and VII. Determination Request  
submitted to EPA  
 4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? Yes  
 5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source? No

Attach all supportive information related to any answer of "Yes". Attach any justification for any answer of "No" that might be considered questionable.

**SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)**

A. Raw Materials and Chemicals Used in your Process, if applicable: N/A

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		

B. Process Rate, if applicable: (See Section V, Item 1)

N/A

1. Total Process Input Rate (lbs/hr): \_\_\_\_\_

2. Product Weight (lbs/hr): \_\_\_\_\_

C. Airborne Contaminants Emitted:

Name of Contaminant	Emission <sup>1</sup>		Allowed Emission <sup>2</sup> Rate per Ch. 17-2, F.A.C.	Allowable <sup>3</sup> Emission lbs/hr	Potential Emission <sup>4</sup>		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
Particulate	Not Available		0.1 lb/MM BTU	9 lb/hr.	9.0	39.4	
SO <sub>2</sub>	Not Available		0.8 lb/MM BTU	72 lb/hr.	72.0	315	
NO <sub>x</sub>	Not Available		0.3 lb/MM BTU	27 lb/hr.	27 lb/hr.	118.2	

D. Control Devices: (See Section V, Item 4) NONE

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles <sup>5</sup> Size Collected (in microns)	Basis for Efficiency (Sec. V, It <sup>5</sup> )

<sup>1</sup>See Section V, Item 2.

<sup>2</sup>Reference applicable emission standards and units (e.g., Section 17-2.05(6) Table II, E. (1), F.A.C. – 0.1 pounds per million BTU heat input)

<sup>3</sup>Calculated from operating rate and applicable standard

<sup>4</sup>Emission, if source operated without control (See Section V, Item 3)

<sup>5</sup>If Applicable



E. Fuels

Type (Be Specific)	Consumption*Estimated		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Natural Gas and/or	.043	.086	90MM BTU/hr.
No. 6 Oil and/or	7.5	15	90MM BTU/hr.
By Product Oils			90MM BTU/hr.

\*Units Natural Gas, MMCF/hr; Fuel Oils, barrels/hr; Coal, lbs/hr

Fuel Analysis: Typical No. 6 Oil blended with By Product Oils

Percent Sulfur: 0.72% Percent Ash: 0.25%

Density: 7.5 lbs/gal Typical Percent Nitrogen: -

Heat Capacity: 19,000 BTU/lb 143,000 BTU/gal

Other Fuel Contaminants (which may cause air pollution): NONE

F. If applicable, indicate the percent of fuel used for space heating. Annual Average N/A Maximum \_\_\_\_\_

G. Indicate liquid or solid wastes generated and method of disposal.

NO solid waste. Liquid waste-boiler blowdown are discharged to a cooling pit and subsequently to Moncrief Creek by MPDES Permit - Estimated 22 gpm with 2000 ppm sodium salt concentration.

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack): NOT AVAILABLE

Stack Height: \_\_\_\_\_ ft. Stack Diameter: \_\_\_\_\_ ft.

Gas Flow Rate: \_\_\_\_\_ ACFM Gas Exit Temperature: \_\_\_\_\_ °F.

Water Vapor Content: \_\_\_\_\_ % Velocity: \_\_\_\_\_ FPS

SECTION IV: INCINERATOR INFORMATION N/A

Type of Waste	Type O (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq & Gas By-prod.)	Type VI (Solid By-prod.)
Lbs/hr Incinerated							

Description of Waste \_\_\_\_\_

Total Weight Incinerated (lbs/hr) \_\_\_\_\_ Design Capacity (lbs/hr) \_\_\_\_\_

Approximate Number of Hours of Operation per day \_\_\_\_\_ days/week \_\_\_\_\_

Manufacturer \_\_\_\_\_

Date Constructed \_\_\_\_\_ Model No. \_\_\_\_\_

	Volume (ft) <sup>3</sup>	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: \_\_\_\_\_ ft. Stack Diameter \_\_\_\_\_ Stack Temp. \_\_\_\_\_

Gas Flow Rate: \_\_\_\_\_ ACFM \_\_\_\_\_ DSCFM\* Velocity \_\_\_\_\_ FPS

\*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device: [ ] Cyclone [ ] Wet Scrubber [ ] Afterburner [ ] Other (specify) \_\_\_\_\_

Brief description of operating characteristics of control devices: \_\_\_\_\_

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Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

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### SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight — show derivation.
2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).
4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, etc.).
5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3, and 5 should be consistent: actual emissions = potential (1-efficiency).
6. An 8½" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.
7. An 8½" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).
8. An 8½" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

9. An application fee of \$20, unless exempted by Section 17-4.05(3), F.A.C. The check should be made payable to the Department of Environmental Regulation.
10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

**SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY**

- A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?  
 Yes  No

Contaminant	Rate or Concentration
Particulate	0.1 lbs/MM BTU
Sulfur Dioxide	0.8 lbs/MM BTU
Nitrogen Oxides	0.3 lbs/MM BTU

- B. Has EPA declared the best available control technology for this class of sources (If yes, attach copy)  Yes  No

UNKNOWN	Contaminant	Rate or Concentration

- C. What emission levels do you propose as best available control technology?

Contaminant	Rate or Concentration
Particulate	0.1 lbs/MM BTU
Sulfur Dioxide	0.8 lbs/MM BTU
Nitrogen Oxides	0.3 lbs/MM BTU
Hydrocarbons	1 lb/1000 gal. fuel oil

- D. Describe the existing control and treatment technology (if any).

- |                           |                      |
|---------------------------|----------------------|
| 1. Control Device/System: | 4. Capital Costs:    |
| 2. Operating Principles:  | 6. Operating Costs:  |
| 3. Efficiency: *          | 8. Maintenance Cost: |
| 5. Useful Life:           |                      |
| 7. Energy:                |                      |
| 9. Emissions:             |                      |

Contaminant	Rate or Concentration

\*Explain method of determining D 3 above.

10. Stack Parameters NOT AVAILABLE

- a. Height: ft.
- b. Diameter: ft.
- c. Flow Rate: ACFM
- d. Temperature: °F
- e. Velocity: FPS

E. Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary).

1.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency\*:
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy\*:
- h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

2.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency\*:
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy\*\*:
- h. Maintenance Costs:
- i. Availability of construction materials and process chemicals:
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

\*Explain method of determining efficiency.

\*\*Energy to be reported in units of electrical power – KWH design rate.

3.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency\*:
- d. Capital Cost:
- e. Life:
- f. Operating Cost:
- g. Energy:
- h. Maintenance Cost:

\*Explain method of determining efficiency above.

- i. Availability of construction materials and process chemicals:
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space and operate within proposed levels:

4.

- a. Control Device
- b. Operating Principles:
  
- c. Efficiency\*:
- d. Capital Cost:
- e. Life:
- f. Operating Cost:
- g. Energy:
- h. Maintenance Cost:
- i. Availability of construction materials and process chemicals:
- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected:

- 1. Control Device:
- 2. Efficiency\*:
- 3. Capital Cost:
- 4. Life:
- 5. Operating Cost:
- 6. Energy:
- 7. Maintenance Cost:
- 8. Manufacturer:
- 9. Other locations where employed on similar processes:

a.

- (1) Company:
- (2) Mailing Address:
- (3) City:
- (4) State:
- (5) Environmental Manager:
- (6) Telephone No.:

\*Explain method of determining efficiency above.

(7) Emissions\*:

Contaminant	Rate or Concentration

(8) Process Rate\*:

b.

- (1) Company:
- (2) Mailing Address:
- (3) City:
- (4) State:

\*Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions\*:

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

(8) Process Rate\*:

10. Reason for selection and description of systems:

\*Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

